Security & Best's Products Proposal

Introduction to MOS Facilities

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security & best

01. R/F ID Card reader (MTR-8000)

Specifications of Access Control System (MTR-8000)

Specifications	MTR-8000 (R/F ID Card Reader)
Card Registration No	50,000 cardholders
PIN No.	1,000 (4 ~ 8 Digits)
CPU	32 Bit MCU
LCD	2.8" Graphic Color LCD
INTERFACE	10M Network / Serial port 1
SOUND	Buzzer
R/F & ISO Standard	13.56Mhz and ISO/EC 14443A
Input / Output	1 Input / 1 Relay Output
Communication	Standalone type, RS485, TCP/IP
Power Requirement	12V DC 200mA
Dimensions (WXHXD)	84mmX136mmX22mm
Operating temperature	-20℃~+70℃ /5%
Humidity	5%~90%
PC Management program	Apartment complex/Office

MTR-8000, a general type R/F ID card reader, has a sleek design and is equipped with a 2.8-inch graphic LCD display that helps users check normal operation status of communication, (standalone type, RS485, TCP/IP) – the device flickers when disconnected -, the door status, (whether it is open/closed), card recognition status, R/F ID card recognition status, and its operation status – the device flickers under normal operating conditions -. Furthermore, it also allows users to use other functions such as registration/deregistration of R/F ID cards & passwords, setting IDs and deleting devices using numbers, *, and # buttons on the touch screen pad.

02. R/F ID Card reader (MFR-8000)

Specifications of Access Control System (MFR-8000)

Specifications	MFR-8000 (R/F ID Card Reader)
Card Registration No	50,000 cardholders
PIN No.	100 (4 ~ 8 Digits)
CPU	ARM 32-bit Cortex-M3 MCU
LCD	2.0" Graphic Color LCD
INTERFACE	10M Network / Serial port 1
SOUND	Buzzer
R/F & ISO Standard	13.56Mhz and ISO/EC 14443A
Input / Output	1 Input / 1 Relay Output
Communication	Standalone type, RS485, TCP/IP
Power Requirement	12V DC 200mA
Dimensions (WXHXD)	190mmX50mmX35mm
Operating temperature	-20℃~+70℃ /5%
Humidity	5%~90%
PC Management program	Apartment complex/Office

MFR-8000, a general type R/F ID card reader, has a sleek ,slim design and is equipped with a 2.0-inch graphic LCD display that helps users check normal operation status of communication, (standalone type, RS485, TCP/IP) – the device flickers when disconnected -, the door status, (whether it is open/closed), card recognition status, R/F ID card recognition status, and its operation status – the device flickers under normal operating conditions -. Furthermore, it also allows users to use other functions such as registration/deregistration of R/F ID cards & passwords, setting IDs and deleting devices using numbers, *, and ♯ buttons on the touch screen pad.

03. Fingerprint card reader (MSR-8000)

Specifications of Access Control System (MSR-8000)

Specifications	MSR-8000 (Fingerprint Card Reader)
Card registration No.	50,000pcs cardholders
PIN No.	1,000 (4 to 8 digits)
Fingerprints registration No	25,000
CPU	A20 Dual Coretex-A71.2G
LCD	4" TFT Color LCD/Capacitance Glass Touch Screen
Memory	1Gbyte DDR3 RAM + 16Gbyte eMMC
INTERFACE	USB Port 2 / Serial port 2
SOUND	MIC / Speaker
R/F & ISO Standard	13.56Mhz and ISO/EC 14443A
Input / Output	4 Input / 2 Relay Output / Speaker Out
Communication	RS232, RS485, TCP/IP, BLE / Settings, Mobile Card, Beacon Collection
Power Requirement	12V DC (9~40V Variable input) 300mA
Dimensions (WXHXD)	84mmX223mmX37mm
Operating Temperature	-20℃~+70℃ /5%
Humidity	5%~90%
Video/Voice Module	HA Video call NTSC Camera/Video phone
PC Manager Program	Apartment complex/Office (Access Control/Attendance)

MSR-8000, a card reader with fingerprint scanner, is a more secure access control device that combines R/F ID card reader, fingerprint recognition, and voice/video call function and allows users to enter/exit the gate via Bluetooth app on the smartphone. When a visitor wants to have access, s/he should press the 'call' button, and then, residents or building managers identify the visitor, check the reason s/he visits by phone and press the 'open' button of the video phone to give the visitor access.

MSR-8000 is a state-of-the-art, integrated access control device with five verification methods.

(No.1: Card + Fingerprint / No.2: Card + Password + Fingerprint /

No.3: Card + Fingerprint + Bluetooth / No.4: Password + Bluetooth /

No.5: Fingerprint + Bluetooth)

04. Access Control System Configuration Diagram

Access Control System Configuration Diagram
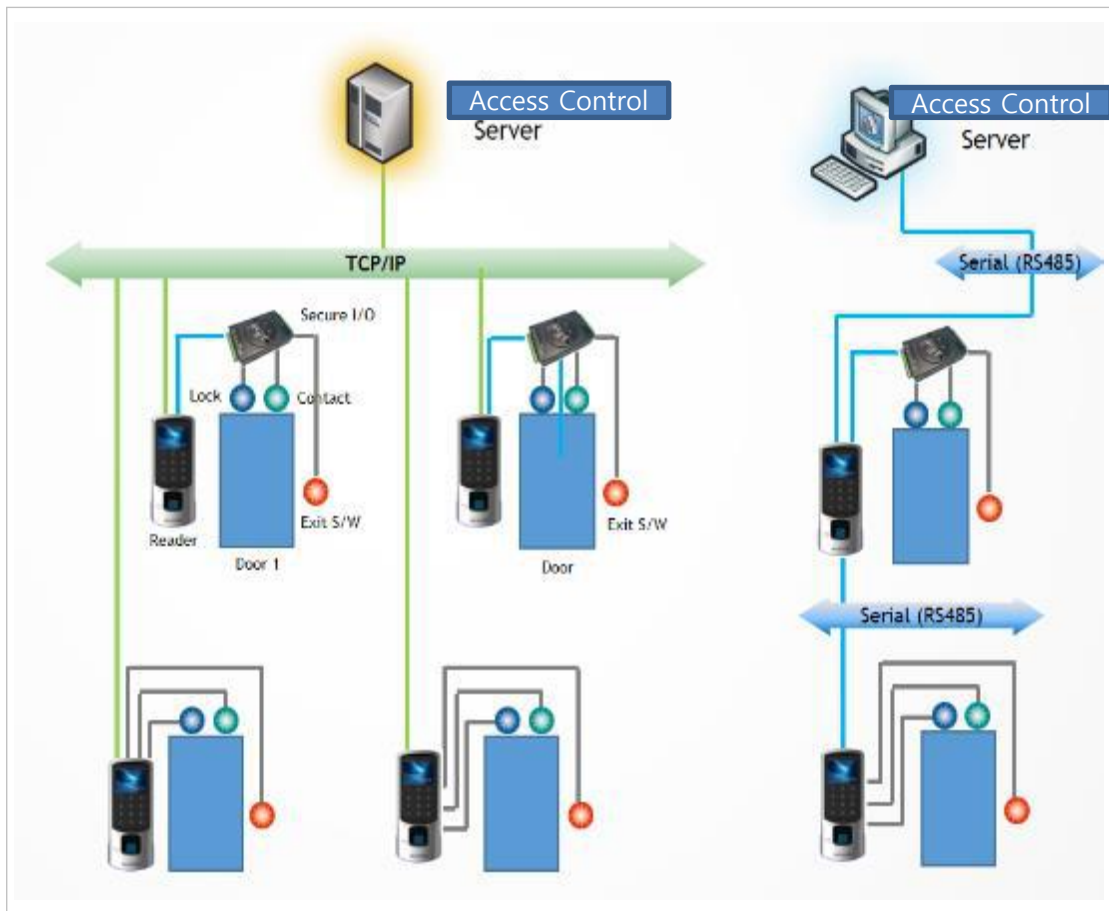
MSR-8000 (Old version)

MSR-8000

MTR-8000

R/F ID
Card Readers

MFR-7000

R/F ID
Card Readers

MSR-6000

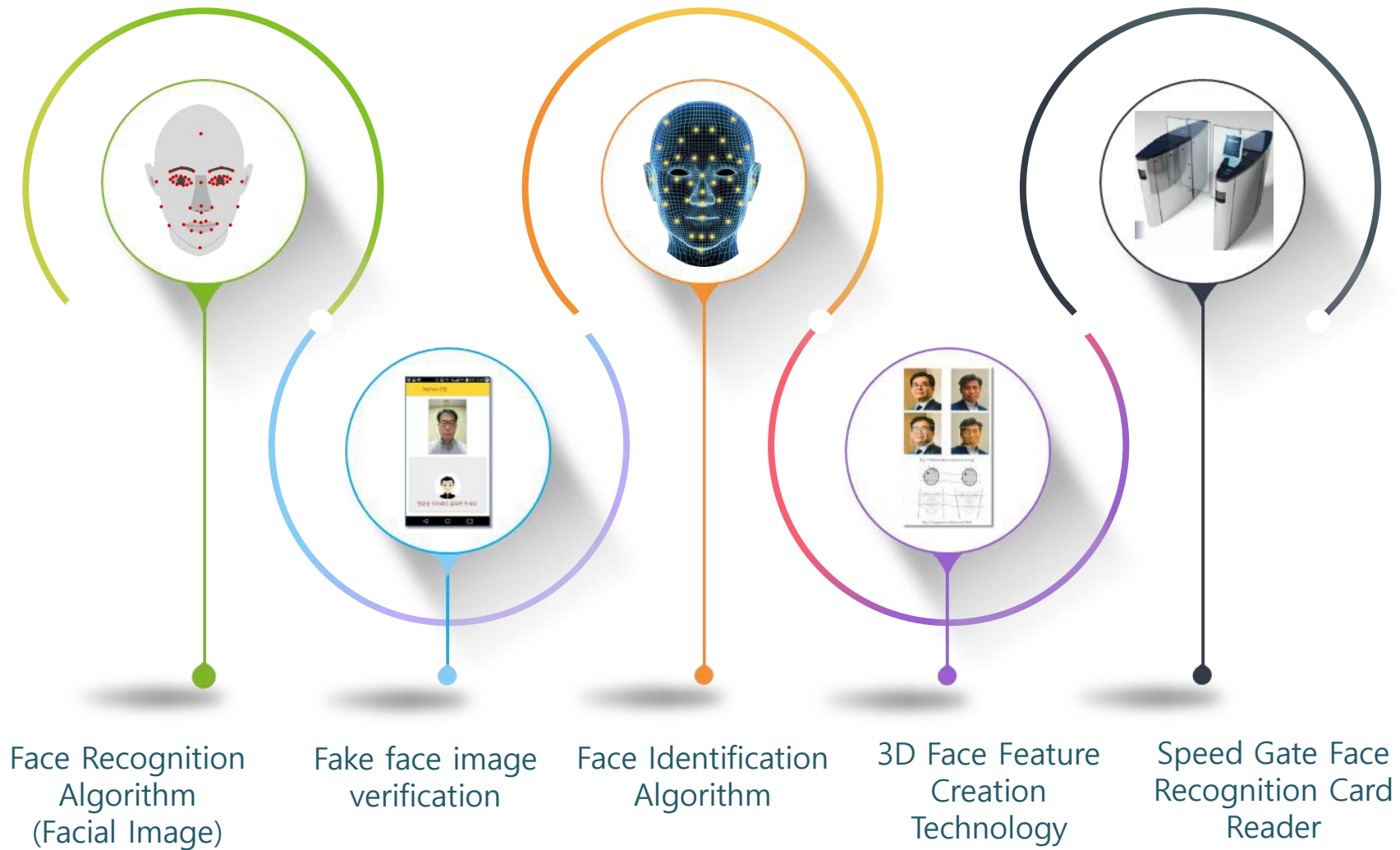Dummy Type
Card Reader
(Wiegand 34bit)

05-1. Face Recognition card reader (FR-9000)

Specifications of Access Control System (FR-9000)

Specifications	FR-9000 (Face recognition Card Reader)
Face Recognition Registration No.	20,000pcs Faceholders
R/F ID Card registration No.	10,000 Cardholders
CPU	RK3288W 4x ARM® Cortex™ A17 1.6GHz
LCD	7" TFT Color LCD/Capacitance Glass Touch Screen
Camera	2MP
Memory	1Gbyte DDR3 RAM + 16Gbyte eMMC
INTERFACE	USB & Relay port 1 / RS485 & Wiegand34bit Port 1
SOUND	MIC / Speaker
R/F & ISO Standard	13.56Mhz and ISO/EC 14443A
Input / Output	4 Input / 2 Relay Output / Speaker Out
Communication	RS485, TCP/IP, Wiegand 34Bit
Power Requirement	12V DC (9~40V Variable input) 300mA
Dimensions (WXHXD)	126mmX219mmX25mm
Operating Temperature	-20℃~+70℃ /5%
Humidity	5%~90%
Operating System	Android 7.1
PC Manager Program	Apartment complex/Office (Access Control/Attendance Management)

05-2. ADVANTAGE of Face Recognition card reader (FR-9000)

Face Recognition Algorithm (Facial Image)

Fake face image verification

Face Identification Algorithm

3D Face Feature Creation Technology

Speed Gate Face Recognition Card Reader

Specifications of Access Control System (FR-9100)

Solid & Beautiful Design

5cm Slim

IP65

WIFI & BT

POE (Power over Ethernet)

Easy install

KIOSK Install available

Specifications	FR-9100 (Face recognition Card Reader)
Accuracy	100%, Zero FAR
User Capacity	Unlimited
CPU	ARM Octa Core
Camera	HDR Dual RGB/IR Camera
Range (Distance)	Up to 2 meters
Range (Angle)	People 130 cm ~ 200 cm tall
Anti-Fake	Passive Liveness detection
Lock Control	Built in ACU (C-Form relay max. 3A)
Input	2 Door Status / Exit Button / RTX / 2 Fire Alarm in (dry & wet) / Wiegand in / GPI / Hold / Release Alarm
Output	Wiegand / OSDP / Alarm out / Tamper / Power Fail (Alive) / GPO / Trouble
Tech Card	ACC / Mifare / DesFire / Felica / Java / NFC
Communication	Ethernet / Wifi / RF-485 / Bluetooth
Power Requirement	7~24VDC, 12Watt / Support PoE+
Environment Rate	IP65
Dimensions (WXHXD)	50mm X 38mm X 230mm
Tamper Sensing	Yes
Time and Attendance	Yes
Mobile Key / QR	Support
Certificate	CE, FCC, KCC
System Integration	Instant applicable by replacing existing RFID reader

07. Access Control Accessories

Accessories (R/F ID Card / Electric Door Lock / Exit Button)

R/F ID Card

기본형 사출 PC 케이스 18*45(mm)

SHS-AKT300K/OP
NFC / OP사양
25*25(mm)

SHS-AKT300K
NFC / 기본
25*25(mm)

OP 사양 사출 PC 케이스 18*45(mm)

R/F ID Access Card (Cell phone chain type, ISO, NFC TAG)

Smart ID Card (Employee ID Card, Access Card)

Electric Door Lock

Door Striker   **EM Lock**   **Dead Bolt Lock**

Exit Button

Receiver

Transmitter

Exit Button(SB-PB1) (SB-PB02)
사이즈 : 38X155X20   36X130X18

(SB-PB03)   **Wireless Exit**
45X56X12   **Button (SB-PB04)**
42X153X21

08. Anti-Metal R/F ID stainless steel Card

Anti-Metal R/F ID (Stainless Steel R/F ID Card)

Function

This Anti-Metal Stainless steel card is an access R/F identification card to open and close the door for using R/F ID Card reader, Fingerprint card reader, Lobby-Phone, Digital Door Lock after registering.

Specification

1. Frequency : 13.56MHz Mifare (ISO 14443-A type)
2. Reading Distance : Up to 3cm
3. Material : Stainless Steel / Sticker (Antenna+Chip)
4. Dimensions : 86(W) x 54(H) x 12(D) mm
5. Operating Temperature : -20℃~+50℃

Patent Product

1. Patent No : 10-2199392
2. The application No : 1-2020-0133222
3. The application Date : 15th, October, 2020 Years
4. Registration Date : 30th, December, 2020 Years
5. Patent Name : Anti-Metal R/F ID Card
6. Patent Holder : Security & Best Co.,Ltd

Design Patent Product

1. Patent No : 30-1069485 / 30-1069486
2. The application No : 30-2020-002363 / 0023634
3. The application Date : 28th, May, 2020 Years
4. Registration Date : 3th, March, 2020 Years
5. Design Patent Name : Object of Design - Access Card
6. Patent Holder : Security & Best Co.,Ltd

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09. Electric Striker Lock

CQ-ES301 (Fail Safe Type)

Power Requirement : DC12V (210mA) / DC24V(120mA)
Relay Output : Door status (COM,NO,NC)
Weight : 0.38Kg
Material : Stainless Steel
Wiring / Relay out : Red(+12/+24), Black(Ground)
                              Brown(COM) Blue(N.O), Yellow(N.C)
Dimensions : 124(L) X 36.5(W) X 32(H) mm

CQ-ES201 (Fail Safe Type)

Power Requirement : DC12V (210mA) / DC24V(120mA)
Weight : 0.38Kg
Material : Stainless Steel
Wiring : Red(+12/+24), Black(Ground)
Dimensions : 124(L) X 36.5(W) X 32(H) mm

10. Dead Bolt Lock

CQ-DB05 (Fail Safe Type)

Power Requirement : DC12V / DC 24V

Power Consumption : Working, 580mA / Stand by, 200mA

Door status range sensing range : within 15mm

Material : Out body – Aluminum / Bolt-Stainless Steel

Dimensions : 150(L) X 34(W) X 28(H) mm

CQ-DB06 (Fail Safe Type)

Power Requirement : DC12V
Power Consumption : Working, 900mA / Stand by, 00mA
Output relay : Door status sensing (COM,NO,NC)
Weight : 0.68Kg
Material : Aluminum, Stainless Steel
Wiring : Red(+12V), Black(Ground), Gray(COM)
            Green(N.O), Yellow(OPEN)
Dimensions : 200(L) X 24(W) X 38(H) mm

11. Electric Magnetic Lock

CQ-EM280

Power Requirement : DC12V (400mA)

Relay Output : Door status sensing (COM,NO,NC)

Weight : 2Kg

Material : Aluminum, Stainless Steel

Holding Force : 280Kg (600 Pounds)

Dimensions : Magnet - 250(L) X 50(W) X 25(H) mm

Armature Holder -180(L) X 38(W) X 11(H) mm

12. Exit Button

SB-PB02 (Exposed Type)

Power Requirement : DC12V

Wall mounting Type

Resistance : 500mm ohm

Dimensions : 130(L) X 36(W)X18(H) mm

SB-PB03 (Exposed Type)

Power Requirement : DC12V

Wall mounting Type

Resistance : 500mm ohm

Dimensions : 56(L) X 45(W) X 12(H) mm

13-1. Touchless Exit Button

Touchless Exit Button with wire

- Power Requirement : DC 12V

- Dimensions : 153(L) X 42(W) X 21(H)

- Sensing minute electric current of Body

- Sensing Distance : 5cm

- No risk of infection by contact

- **A safer way to open the door**

(**Places to be installed** : Office, Hospital, Laboratory, Restaurant, etc)

Do not Press Just Wave   No Risk of Infection by Contact   Keep Hand Clean   No Additional Power

13-2. Touchless Exit Button(with out wire)

Touchless Exit Button without wire

Transmitter

Receiver

- Sensing Distance : 5cm
- Input Signal relay time : 0.5 ,0.65, 0.8, 1sec
- Power failure, 2pcs AAA type Batteries
- Power Requirement : 3V (2pcs AAA Batteries) / DC 12V
- Power Consumption : Working – 55mA / Stand By - 15uA
- Operation Temperature : - 20℃ ~ +60℃
- Lifecycle : 1 year (100 times / A Day)
- LED : Working Green LED lighting
- Buzzer : Working status / Alarm low tension
  (After detecting low volage, It can operate for 15 days at
   maximum, 100 timer per day)
- Frequency : 447.3375 / 447.4750 MHz
- Wireless Communication Distance : Max. 800m
      (Exposed Ground/Output 10dBm Setting Base)
- Tact Switch : for Using Synchronization Switch
- Dimensions : Transmitter - 153(L) X 42(W) X 21(H)mm
                      Receiver   - 90(L) X 44(W) X 20(H)mm

14. Access Control Accessories

White / Black

Main Functions

This is R/F ID smart lock grip key, which enables users to register this at a door lock and access control system. To use this, peel the sticker off and put the sticker on the phone. If necessary, pull the grip key forward to open/close the gate.

Device Specifications

1. Frequency: 13.56MHz Mifare (ISO 14443-A Type)
2. Reading Distance: Maximum 5cm
3. Material: Epoxy + PVC
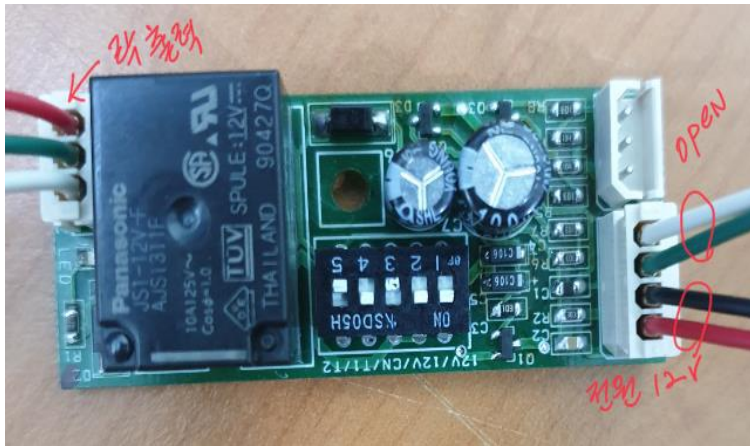4. Size: 40(W) x 40(H) x 25(D) mm
5. Operating Temperature : -20℃~+50℃

Image

SAMSUNG
Smart Lock

Grip Key

15. Access Control Accessories

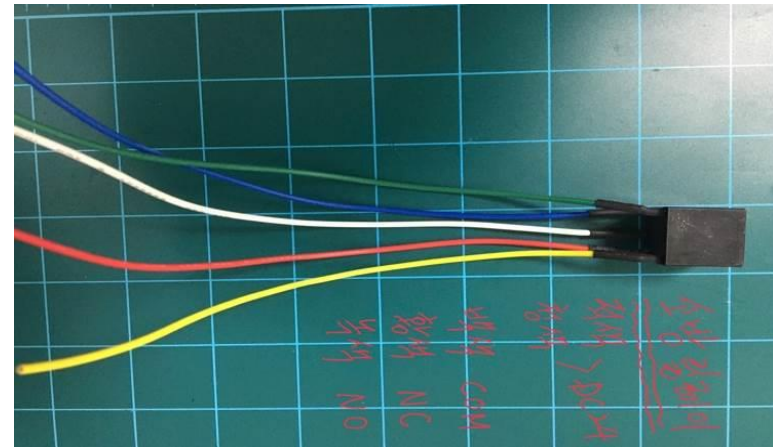## Accessories (Lock Control Board/Firefighting Relay)

Lock Control Board

Function: Control Board can solely control EM Locks (EM Lock, Dead Bolt, Door striker) without R/F ID Card Reader.

1. EM Lock Output Connector: 3 Pin (COM:-GND, NC:+12C, NO:+12V)

2. EM Lock Input Connector: 4 Pin (OPEN: 2Pin, Input Power:-GND,+12V)

3. DIP Switch: No. 1.2 : ON, No.3 : OFF, No.4:ON, No.5 OFF:3 Seconds

Firefighting Relay

Function: When a fire occurs, the device automatically opens the gate by receiving firefighting relay signals.

1. Red, Blue: DC 24V

2. White: COM

3. Yellow: NC

4. Green: NO

16. Digital Door Lock series

[PUSH PULL] SB-DP9000FS/FSK

SB-DP9000FS

SB-DP9000FSK

Fingerprint Access (Voice Guide)

-Push Pull Type : 1 Step Unlock (Push from outside and pull from inside)

-Intrusion Detection Function

-Anti-Panic System : Allows to open doors easily in case of emergency

-Abnormal High Temperature Warning : Built-in Temperature Sensor (60±10℃ detection) unlocks door automatically in case of fire

-Fake Password Input Function (Prevent Password Exposure) Battery Dead Alarm

-Initialization

Power source	DC 6V (Alkaline AA battery 4~8pcs(LR6 1.5V AA))
Emergency	DC 9V (6LF22) Optional
Access methods	SB-DP9000FS : 3Way (Finger, Pin number, RF Card / App) SB-DP9000FSK : 4Way (Finger, Pin number, RF Card, Mechanical Key / App)
Dimension(mm)	Outer Body – 84(W) x 352(H) x 68(D) Inner Body – 83.4(W) x 369(H) x 69.3(D)
Color	Gold, Silver

17. Digital Door Lock series

[PUSH PULL] SB-DP7000S/K

SB-DP7000S

SB-DP7000K

-Push Pull Type : 1 Step Unlock (Push from outside and pull from inside)

-Intrusion Detection Function

-Anti-Panic System : Allows to open doors easily in case of emergency

-Abnormal High Temperature Warning : Built-in Temperature Sensor (60±10℃ detection) unlocks door automatically in case of fire

-Fake Password Input Function (Prevent Password Exposure) Battery Dead Alarm

-Initialization

Power source	DC 6V (Alkaline AA battery 4~8pcs(LR6 1.5V AA))
Emergency	DC 9V (6LF22) Optional
Access methods	SB-DP7000S : 2Way (Pin number, RF Card / App) SB-DP7000K : 3Way (Pin number, RF Card, Mechanical Key / App)
Dimension(mm)	Outer Body – 84(W) x 352(H) x 68(D) Inner Body – 83.4(W) x 369(H) x 69.3(D)
Color	Gold, Silver

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18. Digital Door Lock series

[MORTISE LOCK] SB-DL6000FS/FSK

SB-DL6000FS

SB-DL6000FSK

Fingerprint Access (Voice Guide)

-Modem and stylish

-Intrusion Detection Function

-Anti-Panic System : Allows to open doors easily in case of emergency

-Abnormal High Temperature Warning : Built-in Temperature Sensor (60±10℃ detection) unlocks door automatically in case of fire

-Fake Password Input Function (Prevent Password Exposure) Battery Dead Alarm

-Initialization

Power source	DC 6V (Alkaline AA battery 4~8pcs(LR6 1.5V AA))
Emergency	DC 9V (6LF22) Optional
Access methods	SB-DL6000FS : 3Way (Finger, Pin number, RF Card / App) SB-DL6000FSK : 4Way (Finger, Pin number, RF Card, Mechanical Key / App)
Dimension(mm)	Outer Body – 82(W) x 313(H) x 33(D) Inner Body – 82(W) x 310(H) x 25(D)
Color	Gold, Silver

19. Digital Door Lock series

[MORTISE LOCK] SB-DL5000S/K

SB-DL5000S

SB-DL5000K

- Modem and stylish
- Intrusion Detection Function
- Anti-Panic System : Allows to open doors easily in case of emergency
- Abnormal High Temperature Warning : Built-in Temperature Sensor (60±10℃ detection) unlocks door automatically in case of fire
- Fake Password Input Function (Prevent Password Exposure) Battery Dead Alarm
- Initialization

Power source	DC 6V (Alkaline AA battery 4~8pcs(LR6 1.5V AA))
Emergency	DC 9V (6LF22) Optional
Access methods	SB-DL5000S : 2Way
	(Pin number, RF Card / App)
	SB-DL5000K : 3Way
	(Pin number, RF Card, Mechanical Key / App)
Dimension(mm)	Outer Body – 82(W) x 313(H) x 33(D)
	Inner Body – 82(W) x 310(H) x 25(D)
Color	Gold, Silver

20. Digital Door Lock series

[MORTISE LOCK] SB-DL5100S/K

SB-DL5100S

SB-DL5100K

-Fake password input system to prevent your password being exposed High voltage and fire and hacking prevention system

-Unlock the door remotely from video phone

-Access control for managers with dual master function

Power source	DC 6V (Alkaline AA battery 4~8pcs(LR6 1.5V AA))
Emergency	DC 9V (6LF22) Optional
Access methods	SB-DL5100S : 2Way (Pin number, RF Card / App) SB-DL5100K : 3Way (Pin number, RF Card, Mechanical Key / App)
Dimension(mm)	Outer Body – 82.3(W) x 313.3(H) x 23(D) Inner Body – 82(W) x 310(H) x 25(D)
Color	Dark Gray

21. Digital Door Lock series

[HOTEL LOCK] SB-DH2000/LAN/RTC

SB-DH2000

- Abnormal High Temperature Warning
- Internal double locking system
- Two-way communication operating program (LAN)
- Access control with USB port smart key card encoder (RTC)
- Efficient Management with the master card
- Battery Dead Alarm
- Initialization

Power source	DC 6V (Alkaline AA battery 8pcs(LR6 1.5V AA))
Emergency	DC 9V (6LF22) Optional
Access methods	2Way (RF Card(Master+Guest), Mechanical Key / App)
Dimension(mm)	Outer Body – 82.3(W) x 313.3(H) x 25(D)
	Inner Body – 82(W) x 310(H) x 25(D)
Color	Dark Gray

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22. Digital Door Lock series

[RIM LOCK] SB-DS100/S/K

SB-DS100	SB-DS100S	SB-DS100K

- Fake password input system to prevent your password being exposed
- Access control for managers with dual master
- High voltage and fire and hacking prevention system
- Auto lock/double lock

Access methods	SB-DS100 : 1Way (Pin number)
	SB-DS100S : 2Way (Pin number, RF Card)
	SB-DS100K : 3Way
	(Pin number, RF Card, Mechanical Key)
Dimension(mm)	Outer Body – 73.2(W) x 178(H) x 17.5(D)
	Inner Body – 165(W) x 90(H) x 49.1(D)
Color	Black

23. Digital Door Lock series

[RIM LOCK] SB-DS800FS/FSK

SB-DS800FS

SB-DS800FSK

Fingerprint Access (Voice Guide)

- Fake password input system to prevent your password being exposed
- Access control for managers with dual master
- High voltage and fire and hacking prevention system
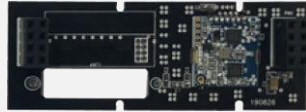- Auto lock/double lock

Access methods	SB-DS800FS : 3Way
	(Finger, Pin number, RF Card)
	SB-DS800FSK : 4Way
	(Finger, Pin number, RF Card, Mechanical Key)
Dimension(mm)	Outer Body – 73.2(W) x 178(H) x 23.6(D)
	Inner Body – 165(W) x 90(H) x 49.1(D)
Color	Black

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24. Digital Door Lock series

Et cetera

SB-RX150
WIRELESS MODULE (RECEIVER)

Compatible Model : Push Pull, Mortise Lock

Door unlocking signal receiver for video intercom, Remote Module
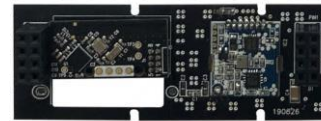
SB-RX160
BLUETOOTH MODULE (RECEIVER)

Compatible Model : Push Pull, Mortise Lock

Unlock the door remotely from smart phone

SB-RX170
BLUETOOTH MODULE + RF MODULE (RECEIVER)

Compatible Model : Push Pull, Mortise Lock

Unlock the door remotely from smart phone and video phone

DC12V 2A ADAPTOR

- Regulated adapter uses regulated IC
- Constant output voltage even the input voltage fluctuates.
- Suitable for small household appliances, digital instruments, measuring instruments, sound devices

Input	AC 85V~260V/47~440Hz
Output	DC12V
Current	2.0A
Usage	Used for products with current consumption 12V / 1A or more (Digital door lock, Lobby Phone, Access control)

SB-TX250
WIRELESS INTERLOCKING DEVICE (TRANSMITTER)

Compatible Model : Push Pull, Mortise Lock

Door unlocking signal transmitter for video intercom

SB-TX260
REMOTE CONTROL

Compatible Model : Push Pull, Mortise Lock

Unlock the door remote control

25-1. Dummy R/F ID Card Reader (MSR-6000)

Dummy R/F ID Card Reader (MSR-8000)

Specifications	MSR-6000 (Dummy R/F ID Card Reader)
Function	R/F ID Card data will be sent Access Control Unit by weigand 34bit interface
LED	Power On : Red Color
	In taping R/F ID card to reader, Green Color
CPU	AT89S52 Microprocessor
Communication	Wiegand 34 Bit / RS232, RS485
SOUND	Buzzer
R/F & ISO Standard	13.56Mhz and ISO/EC 14443A
Reading Distance	Up to 5cm
Maximum communication distance	Up to 100m (Wiegand)
Communication speed	9600bps
Power	12V DC (9~40V Variable input) 100mA
Dimensions (WXHXD)	65(W)mmX110(H)X13(D)mm
Operating temperature	-20℃~+70℃ /5%
Humidity	5%~90%
PC Management program	Office (Time & Attendance)

MSR-6000 Dummy R/F ID Card reader send R/F ID Card' data to Access Control Unit : Controller), When a user taps the R/F ID Card that is registered to Dummy Card reader contactless, A.C.U automatically opens the door.
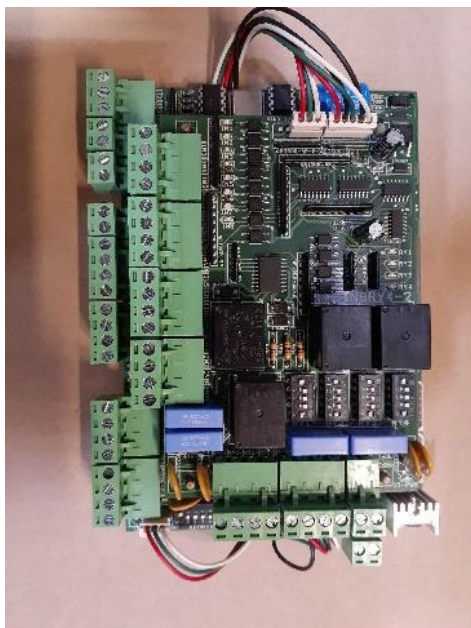
25-2. Access Control Unit (SB-ACU4D)

A.C.U 4 Doors (Access Control Unit : Controller)

Specifications	SB-ACU4D (Access Control Unit : Controller)
Card Registration No	24,000 cardholders
Control Door No.	4 Doors
Event (Buffer)	16,000
Expanding Wiring Distance	Basically, Wiring distance is 1.2Km by RS485, 1.2Km wiring distance become longer by expanding wiring mehtod
Communication speed	9600bps (Default)
CPU	DS80C320, 89S52 Microprocessor
SOUND	Buzzer
R/F & ISO Standard	13.56Mhz and ISO/EC 14443A
Input / Output	8 Input (Door Check 4pcs, Exit Button 4pcs) / 4 output
Communication	Wiegand 34bit, RS422, RS232, RS485
Power	12V DC (9~40V Variable input) 200mA
Dimensions (WXHXD)	PCB Board : 115mmX165mmX37mm Out Box : 246mmX355mmX83mm
Operating temperature	-20℃~+70℃ /5%
Humidity	5%~90%
PC Management Program	Office (Time & Attendance)

A.C.U (Access Control Unit : Controller) recognize R/F ID Card' data that is registered to Dummy R/F ID Card Reader, It automatically opens the door.
It also control electronic door locks such as Electric Magnetic door, Door striker, Dead bolt and Exit Button and adaptor or SMPS.
(Multi Drop communication method : 1,000pcs Dummy R/F ID Card Reader

25-3. Converter (RS232 to RS485 Converter) (SB-CR1000)

Converter (SB-CR1000)

Specifications	Converter (RS232 to RS485) (SB-CR1000)
CPU	89C2051 Microprocessor
Frequency	13.56Mhz
Communication	RS232, RS422, RS485
Power	12V DC (9~40V Variable input) 100mA
Dimensions (WXHXD)	88mmX147mmX42mm
Operating temperature	-20℃~+70℃ /5%
Humidity	5%~90%

This Converter have R/F ID Card' registration & Deletion function as well operate RS232 interface to PC. It convert between RS422, RS485 and Access Control Unit.

PC Management program

RS232

In taps R/F ID Card
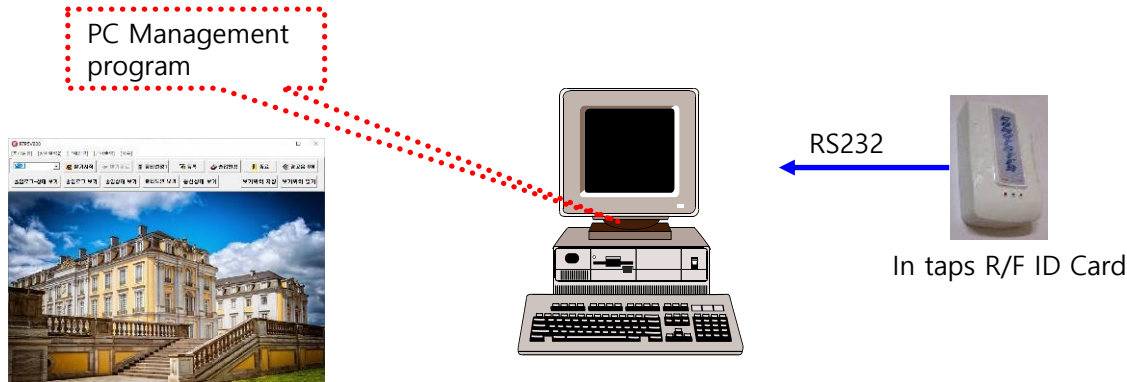
25-4. PC management Program (Time & Attendance)

PC Management Program
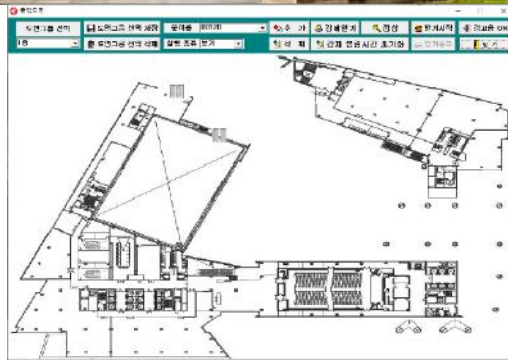
Function
Door Access Set up
Group Access Time Set up
Users can manually open the door by accessing by PC Program (Time)
Users can manually close the door by accessing PC Program (Daily)
R/F ID Card registration function
Fire connection operation function
Fire connection Board (MSC-900) link function
4pcs Password selection way
Access Report Printing and log data saving & Checking Function
Door Status View Function
Drawing Status View Function
Time & Attendance

26-1. Automatic Closing/Opening Device of Emergency Exit Door to Rooftop

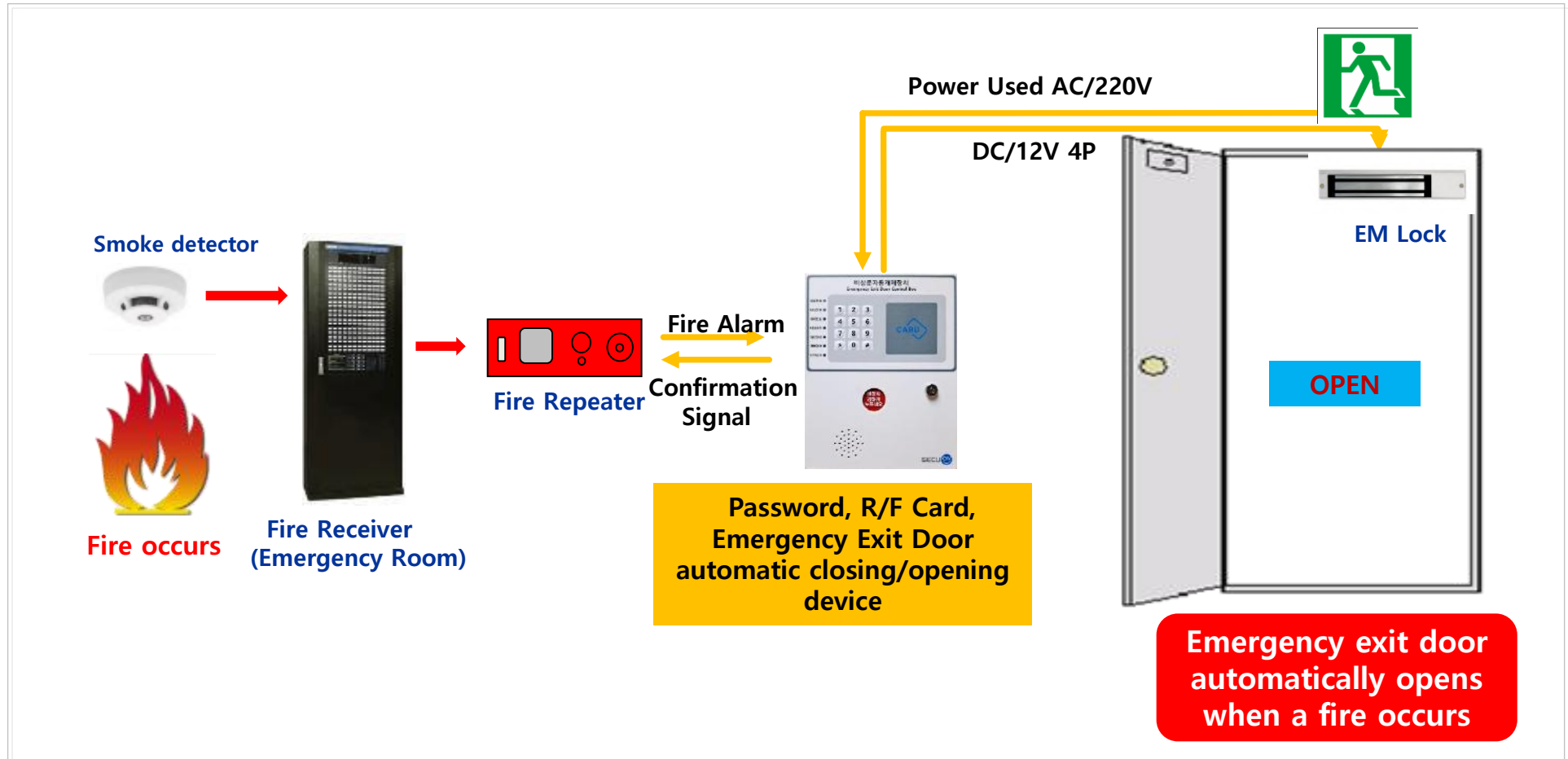## Automatic Closing/Opening Device of Emergency Exit Door to Rooftop (SECUON)

Embedded
Enclosure

Emergency Exit Door Control Device is a closing and opening device (electric and electronic door lock) installed on emergency exit door to rooftop. It automatically opens/closes emergency exit door to rooftop when receiving external signals (such as fire alarm from automatic fire detection system or manual alarm).

Specifications	Automatic closing/opening device of emergency exit door to rooftop(SECUON)
Card registration No	10,000 Cardholders
PIN No	1,000 (4 Digits)
Processor	Atmega 128A, ROM : 128Kbyts (Program) RAM ; 4Kbytes(Data), EEPROM : 1Mbytes
LED	Power, Battery, Fire Alarm, Emergency button, Closing/opening Status, line break down
SOUND	Speaker (more than 90dB)
R/F & ISO Standard	13.56Mhz & ISO/EC 14443A
Emergency Power	DC 12V / 600mAh Ni-Cd battery
Communication	RS-485, TCP/IP
Input Voltage	AC220V / 60Hz
Dimensions (WXHXD)	170mmX220mmX50mm
Operating Temperature	-25℃~+80℃ /5%
Humidity	5%~90%
PC Management Program	Access Control: Card Registration/deregistration, Entry/Exit history, Fire Alarm

Automatic Closing/Opening Device of Emergency Exit Door to Rooftop Configuration Diagram

Power Used AC/220V

DC/12V 4P

EM Lock

Smoke detector

Fire Alarm

Confirmation Signal

Fire Repeater

Fire occurs

Fire Receiver (Emergency Room)

Password, R/F Card, Emergency Exit Door automatic closing/opening device

OPEN

Emergency exit door automatically opens when a fire occurs

security
&

27-1. Alarm Bell System

Specifications of Alarm Bell System (CQ-EMC119)

An alarm bell system for danger areas (e.g. underground parking garage) to prevent incidents via instant communication with security or emergency room workers. When a person presses the button on the bell in case of emergency, the emergency alarm goes off and lights warning is turned on. Also, the location of the device is displayed on the Mapping PC management program of the main system, and the person who pressed the button can communicate with security staff through an emergency communication system using built-in speaker and mic.

Category	CQ-EMC119 (Alarm Bell)
Power	DC 24V, 0.6W (provide power via UTP Cable)
Communication	RS-485
Input / Output port	RJ45
Speaker	8Ω, 1W
Interface	Push button type
Material	Reinforced plastic
Voice transmission distance	1.2Km or more (via UTP CAT.5 cable)
Dimensions (WXHXD)	130mmX174mmX34mm
Operating temperature	-25℃~+80℃ /5%
Humidity	5%~90%
PC management program	Mapping

27-2. Alarm Bell / One-Pass System

Specifications (CQ-EMC119 PLV)

An alarm bell system for danger areas (e.g. underground parking garage) to prevent incidents via instant communication with security or emergency room workers. When a person presses the button on the bell in case of emergency, the emergency alarm goes off and lights warning is turned on. Also, the location of the device is displayed on the Mapping PC management program of the main system, and the person who pressed the button can communicate with security staff through an emergency communication system using built-in speaker and mic. When a Users tap one pass key to Alarm parking location view, these datum will be sent wall-pad

Korea Patent

1.Patent Application No : 10－2021－0038366
2.Company Name : Security & Best Co., Ltd
3.Patent Name : Resident total control System
         by using One－pass Key

Category	CQ-EMC119 PLV
Power Requirement	DC 24V, 0.6W (UTP Cable)
Communication	RS-485
Input/Out Port	RJ-45 3pcs
Speaker	8Ω, 1W
Operation Way	PUSH BUTTON
Material	Reinforced ABS Plastic
Voice receiving Distance	Up to1.2Km (In using UTP CAT.5 Cable)
Dimensions (WXHXD)	130mmX174mmX34mm
Operating Temperature	-25℃~+80℃ /5%
Humidity	5%~90%
PC Management program	PC Mapping

27-3. Alarm Bell System Devices

Alarm Bell System Devices

Name	Image	Function	Note
Alarm Bell Caller (CQ-EMC119)		Emergency call One-pass key function for emergency call Real-time voice transmission Built-in alarm sound and warning light Vehicle Location recognition	High-quality, real-time conversation through IP type communication method– does not require voice amplifier/digital modulator
Alarm Bell Repeater (CQ-ACU)		To be installed in a TPS room at underground parking garage to relay LAN communications to the Central Controller Up to 20 callers can be connected to a Repeater Provides power to connected alarm bell callers Detects malfunctions by itself and transmits the log to the central controller	Provides connection between alarm bells and the central controller Check connection status of the alarm bell and transmit the data to the Central Controller
Alarm Bell Central Controller (CQ-MCU)		Provides connection between Alarm Bell Repeater and operation server Collects emergency data from the repeater and relay the data to corresponding programs Connected to operation server program and processes data	Can connect a maximum of five emergency communication devices
Emergency Communication Device (CQ-EMCD)		Real-time voice communication is possible when an alarm bell goes off Built-in alarm sound Built-in LCD screen to check the location of Alarm Bells (displayed by numbers)	In case of emergency, quickly locates the alarm bell when an alarm is raised by using LCD display, and is easy to make emergency calls

27-4. Alarm Bell System

Alarm Bell System Diagrams

Underground parking lot

Emergency
Caller
(CQ-EMC119)

TPS Room or Emergency Room of a Dong

Repeater
(CQ-ACU)

Emergency Room

CCTV connection

NVR SERVER

USB cable

Central Controller

Emergency Communication Device

Alarm bell server

Security Room

Security Room

Emergency Communication Device

Monitor
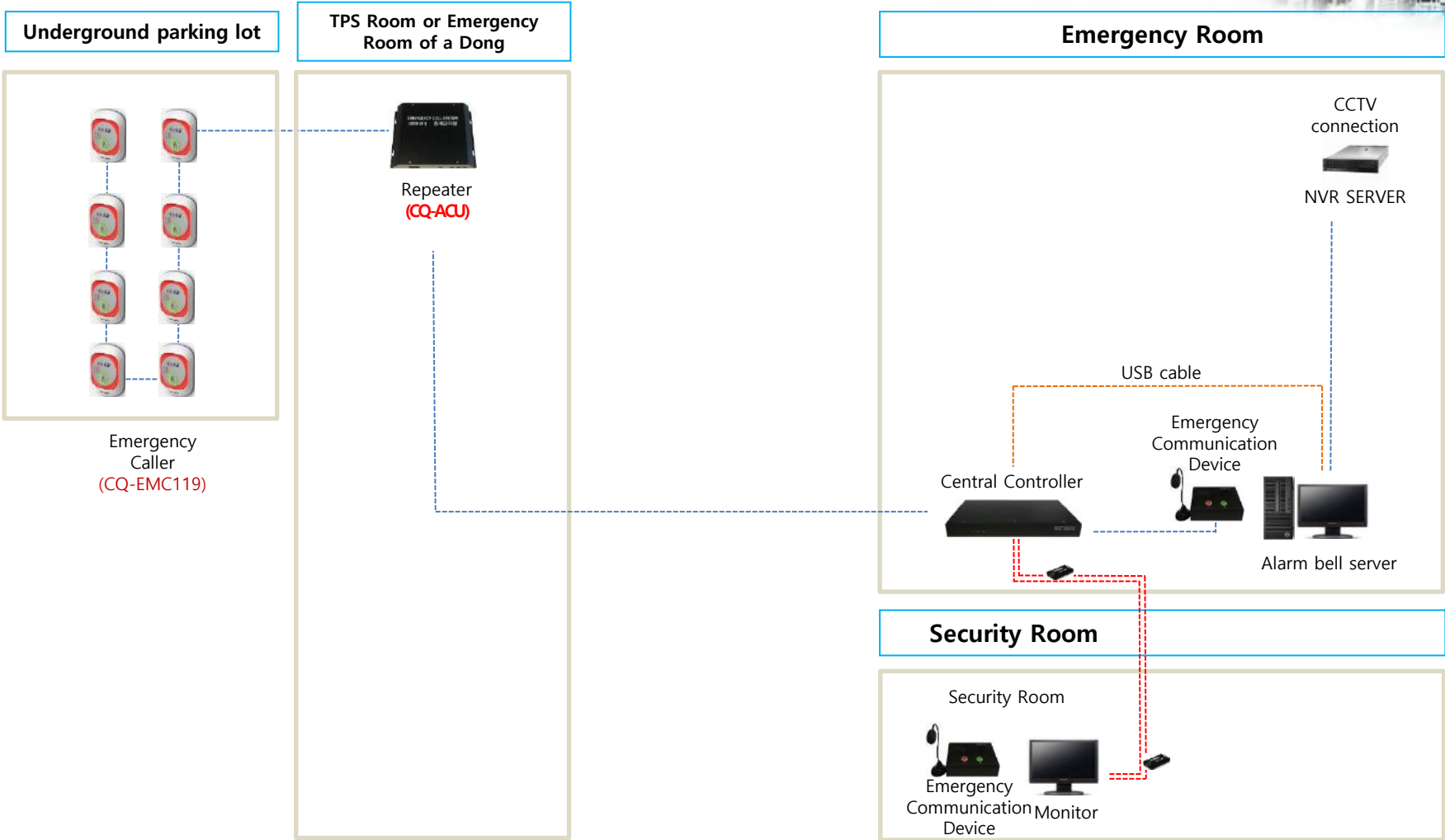
—— Optical fiber cable(TCP,IP)
----- UTP CAT5e-4P
----- UTP CAT6e-4P

27-5. Alarm Bell / One-pass System

Name	Image	Function	Note
One-pass Key (CQ-OPK)		Wireless emergency signal transmission Vehicle location (Where it is parked) detection Access to common entrance And each household unit	Built-in R/F ID card offers authentication feature for household entrance access and other purposes Compact design and pleasurable feel in hand Charge type: Type C– Micro USB (USB charging cable) Battery life changes depending on the number of use: it could last at least 1 year (20 times daily).
One-pass Receiver (CQ-OPR)		Common entrance access verification using one-pass signal receiver Simultaneous operation of One-pass Key and One-pass Application Entrance detection using the motion sensor behind the entrance Elevator call function Precise motion detection thanks to microwave sensor	Can communicate with elevators via connected motion sensors Does not require additional devices to be installed inside the door
Operation Server		Emergency bell and One-pass service database management Location detection server function included Location and CCTV footage pop-up function for emergency Interlinking with CCTV, elevator, home network, and parking management servers	Interoperable with any Server, CCTV, and elevator servers in Korea
Security Room		By sharing monitors, staff in security room can check alarm bell operation server-level functions Thanks to multiuser emergency intercommunication system connected to the Central Controller Security, security room can check alarm bell sound when it goes off and make two-way voice communication	Connected to the main server in the emergency room to distribute signals to security rooms in each Dong

27-6. Alarm Bell / One-pass System

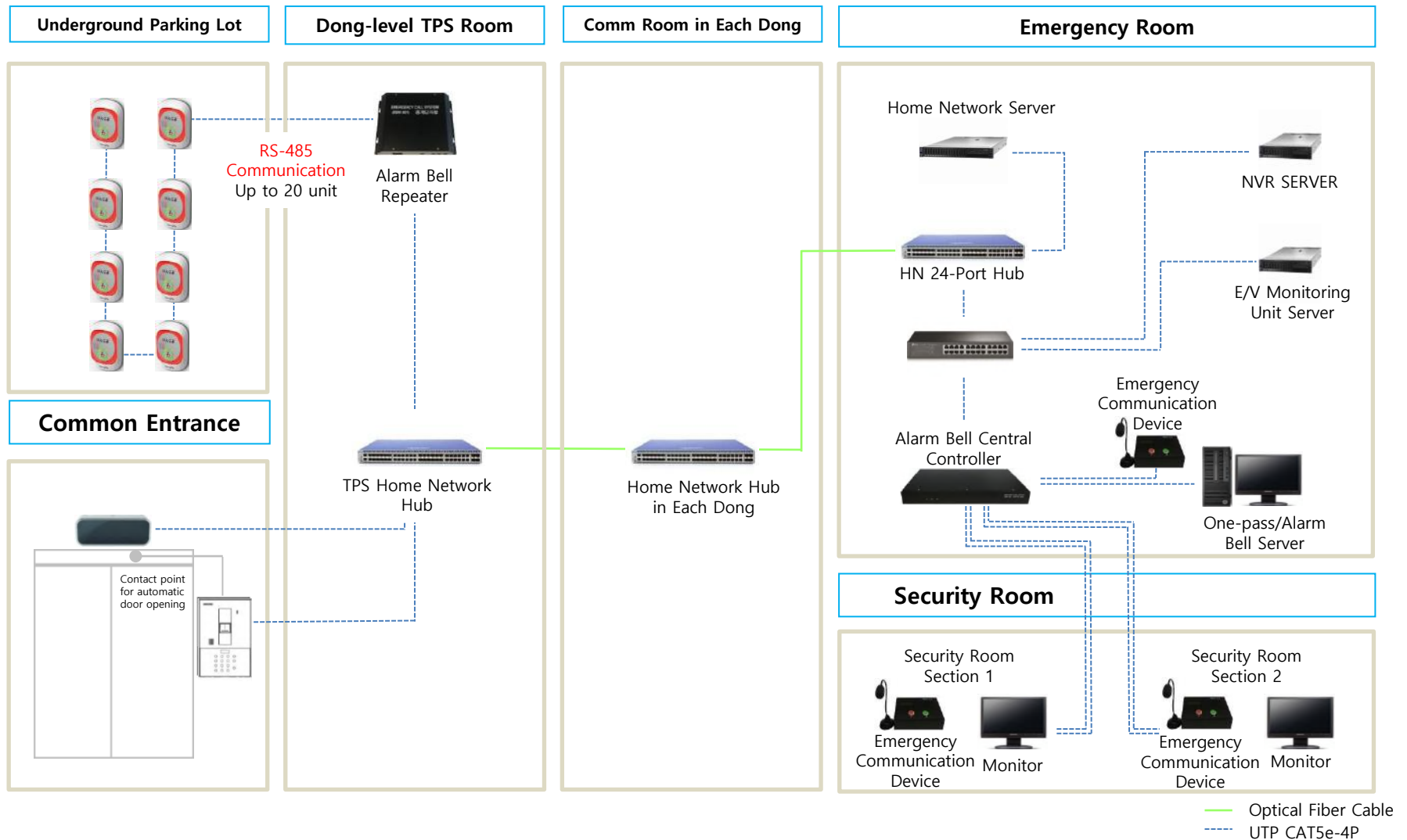| Name	Image	Function	Note
One-pass Key Registration Device (CQ-OPKR)		Scan One-pass signal and register them to servers	Simultaneous recognition of R/F ID (13.56Mhz), and BLE
Switching Hub		Gigabit-level 24-port switch hub Rack type	

27-7. Alarm Bell / One-Pass System Diagrams

⭐ **Strength of Security & Best's products**

- Stable operation: We offer stable line configuration by using home network of housing complex (Private IP)
- Cost saving element: Customers can save installation fees more than other products thanks to minimized cable installation work
- Excellent Interoperability: additional installation is possible and interoperable with other systems' functions depending on network environment
- Location Awareness Emergency Alarm: Emergency Alarm comes with location awareness function. Thus, it does not require customers to install additional location awareness device
- Emergency Call: It allows users to call easily in case of emergency

Emergency Room (MDF Room)

HomNet Server

HN B/B

One-pass, Alarm Bell (location recognition) server

Application server

E/V monitoring unit

NVR server

Unmanned parcel delivery locker server

Comm Room in each Dong

Each Dong's G/W

Common Areas/House

Underground Parking Lot Emergency Caller/Location Recognition
- Emergency call
- Voice communication

Common Entrance Access Controller
- One-pass key entrance authentication
- E/V Calling

Digital Door Lock / Parking Information for Houses
- R/F ID house door opening
- Vehicle location info transmitted via a wall pad

EV Calling
- E/V calling and target and cancel a floor is possible
- Floor designation is possible

27-8. Alarm Bell / One-Pass System Diagrams

Underground Parking Lot

Dong-level TPS Room

Comm Room in Each Dong

Emergency Room

RS-485
Communication
Up to 20 unit

Alarm Bell
Repeater

Home Network Server

NVR SERVER

HN 24-Port Hub

E/V Monitoring
Unit Server

Common Entrance

Emergency
Communication
Device

Alarm Bell Central
Controller

TPS Home Network
Hub

Home Network Hub
in Each Dong

One-pass/Alarm
Bell Server

Contact point
for automatic
door opening

Security Room

Security Room
Section 1

Security Room
Section 2

Emergency
Communication
Device

Monitor

Emergency
Communication
Device

Monitor

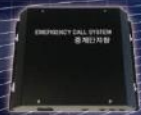—— Optical Fiber Cable
---- UTP CAT5e-4P

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"Security & Best's technology guarantees greater comfort and value!"
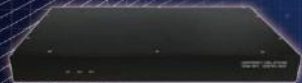
Alarm Bell Caller (CQ-EMC119)
− Emergency call
− Real-time voice communication
− Built-in alarm sound and warning light

Alarm Bell Repeater (CQ-ACU)
− Installed at TPS Room of underground garage to relay RS485 communication to the Central Controller
− Provides power to Alarm Bell Callers
− Detects malfunctions by itself and transmits the log to the Central Controller

Alarm Bell Central Controller (CQ-MCU)
− Provides connection between Alarm Bell Repeater and operation server
− Collects emergency data from the repeater and relay the data to corresponding programs
− Connected to operation server programs and processes data

Emergency Communication Device (CQ-EMCD)
− Real-time voice communication is possible when an alarm bell goes off
− Built-in alarm sound
− Built-in LCD screen to check the location of Alarm Bells (displayed by number)

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security & best

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www.secuandb.com

One-pass Key (CQ-OPK)
− Wireless emergency signal transmission
− Vehicle location detection
− Common entrance access
− Household entrance access
− Built-in R/F ID 13.56Mhz card and BLE 5.0

One-pass Receiver (CQ-OPR)
− Common entrance verification using one-pass signal receiver
− Simultaneous operation of One-pass Key and One-pass Application
− Entrance detection using the motion sensor behind the entrance
− Elevator call function
− Precise motion detection using microwave sensor

One-pass Key Registration Device (CQ-OPKR)
− Scan One-pass signal and register them to servers
− Simultaneous recognition of R/F ID cards (13.56Mhz) and BLE

Operation Server
− Emergency bell and One-pass service database management
− Location detection server function and CCTV footage pop-up function for emergency

Maintenance Office (Security Room)
− Security room can check alarm bell operation server-level functions thanks to shared monitors
− Security room can check alarm bell sound and make two-way voice communications thanks to multiuser emergency communication connected to the Central Controller

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Thank You