Installation Guide *for UBio-X Iris V1.0*

Iris Recognition Terminal

Doc Ver1.0

JULY.,20.2020

R&D Center

Union Community Co., Ltd.

1. The maximum cable length & thickness for installation

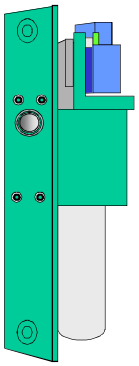
1) Using 15V 4A Power Supply & AWG24

15V 4A Adapter

AWG24 10m

UBio-X Iris

AWG24 10m



Dead-Bolt
BEHOST BHL-700C
(Standby:0.15A, Start:0.9A)

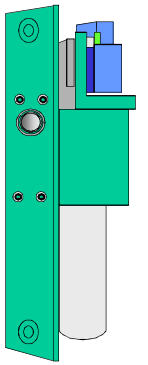
2) Using 15V 4A Power Supply & AWG22

15V 4A Adapter

AWG22 20m

UBio-X Iris

AWG22 10m



Dead-Bolt
BEHOST BHL-700C
(Standby:0.15A, Start:0.9A)

* Caution: The above data are the measured values when using the adapters and the dead-bolts provided by the Union Community.

1. The maximum cable length & thickness for installation

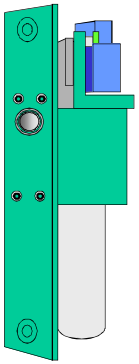
1) Using 15V 4A Power Supply & AWG20

15V 4A Adapter

AWG20 40m

UBio-X Iris

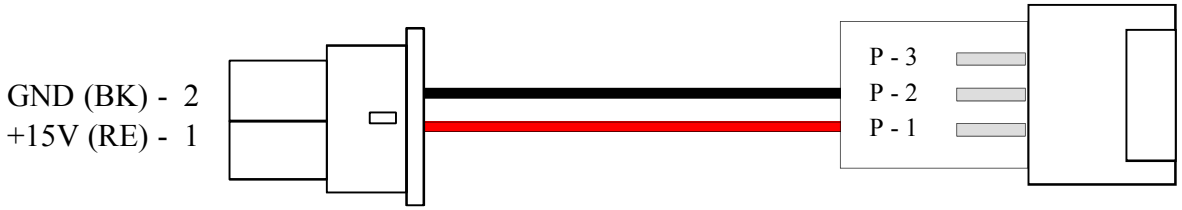
AWG20 10m



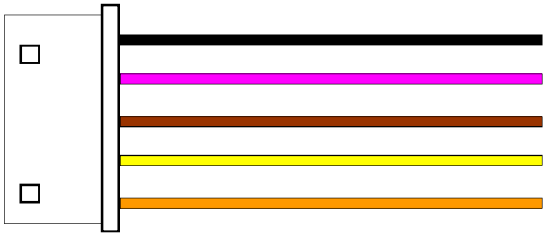
Dead-Bolt
BEHOST BHL-700C
(Standby:0.15A, Start:0.9A)

* Caution: The above data are the measured values when using the adapters and the dead-bolts provided by the Union Community.

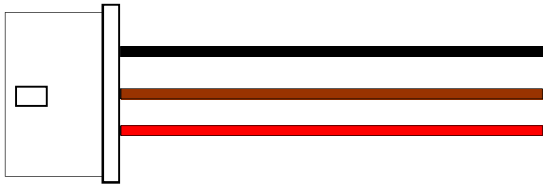
2. Description of External Cables



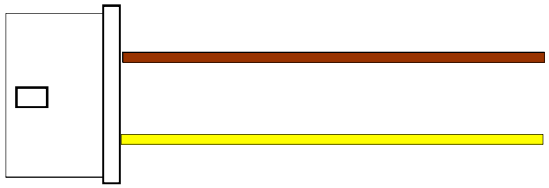
Power Adapter Cable



Wiegand Cable (5P)

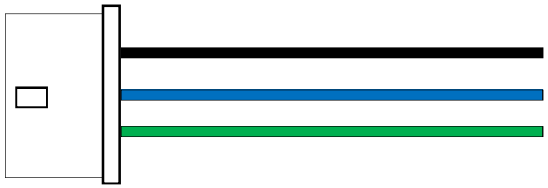


RS232 Cable (3P)



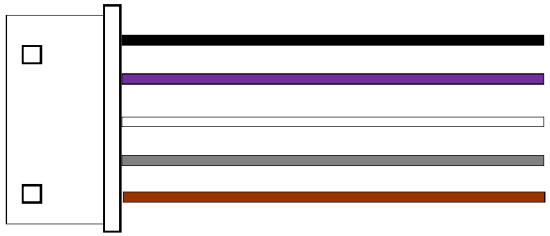
Motor Lock Cable (2P)

2. Description of External Cables



GND (BK) - 3
485B (BL) - 2
485A (GR) - 1

RS485 Cable (3P)

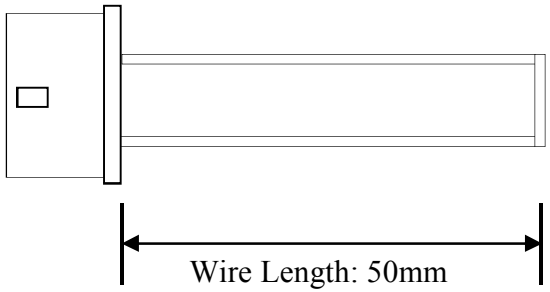


5-GND(BK)
4-L2 (VI)
3-L1NO (WH)
2-L1C (GY)
1-L1NC (BR)

Lock Cable (5P)

5-GND(BK)
4-EXITB (OR)
3-DM2 (BL)
2-DM1 (GR)
1-DM0 (YE)

Lock Status Cable (5P)

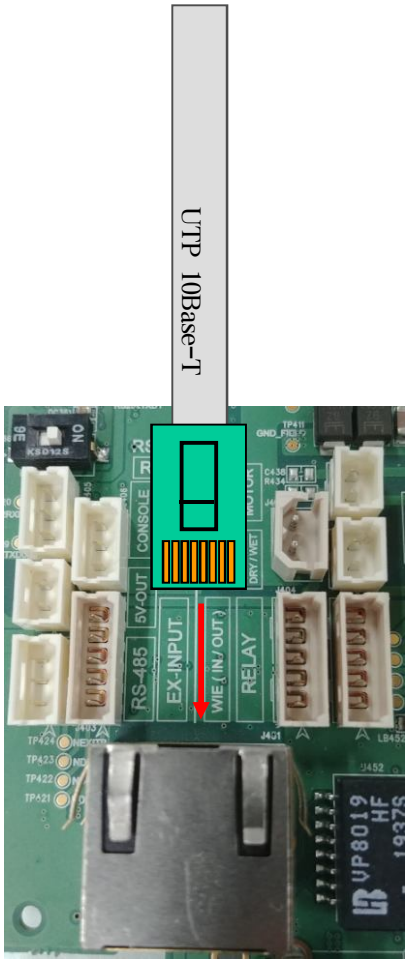


Lock1 Out(WH) - 2

+12V (WH) - 1

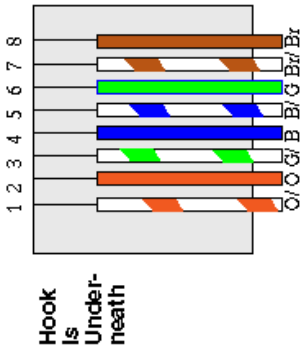
Lock1 Power Cable (2P)

3. Connecting Ethernet (LAN) Cable



J451(RJ45)

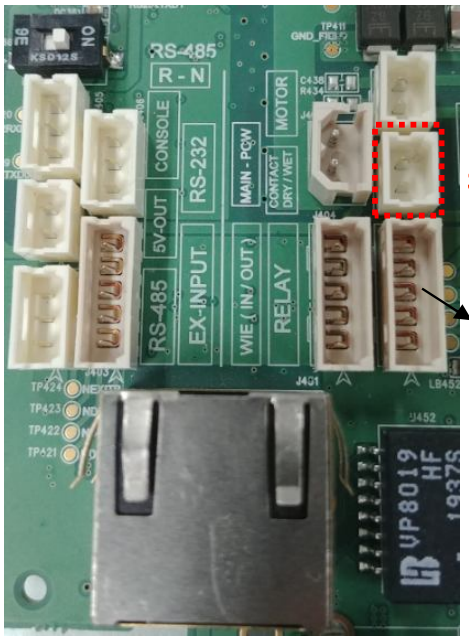
** UTP Connector

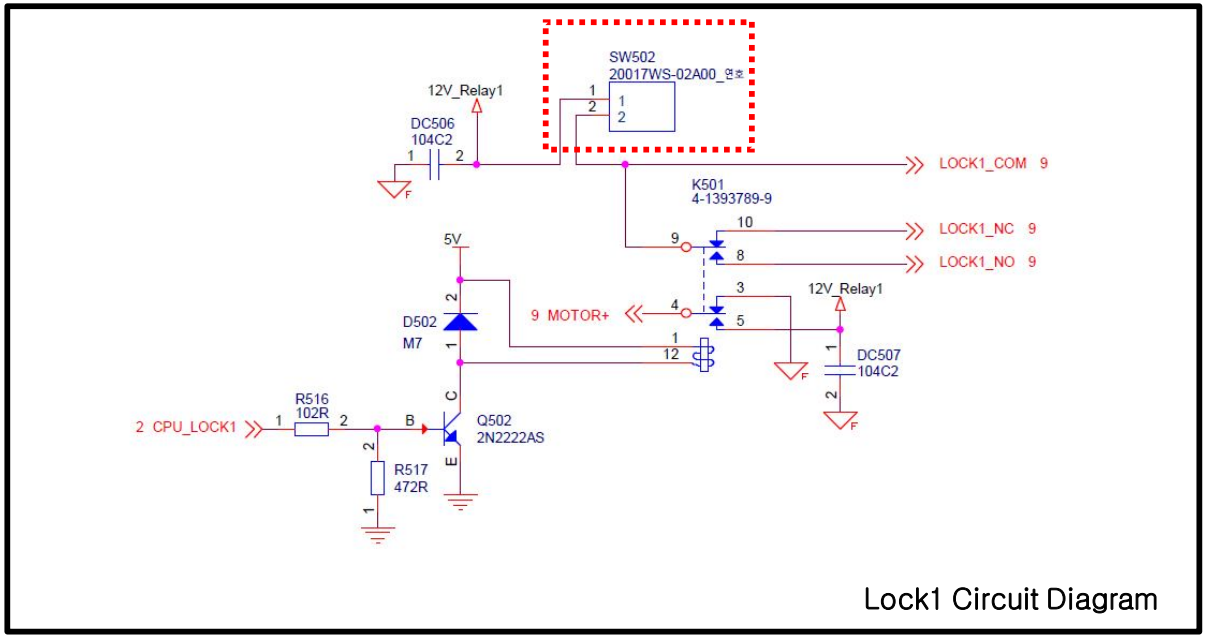


4. Switch description for lock setting

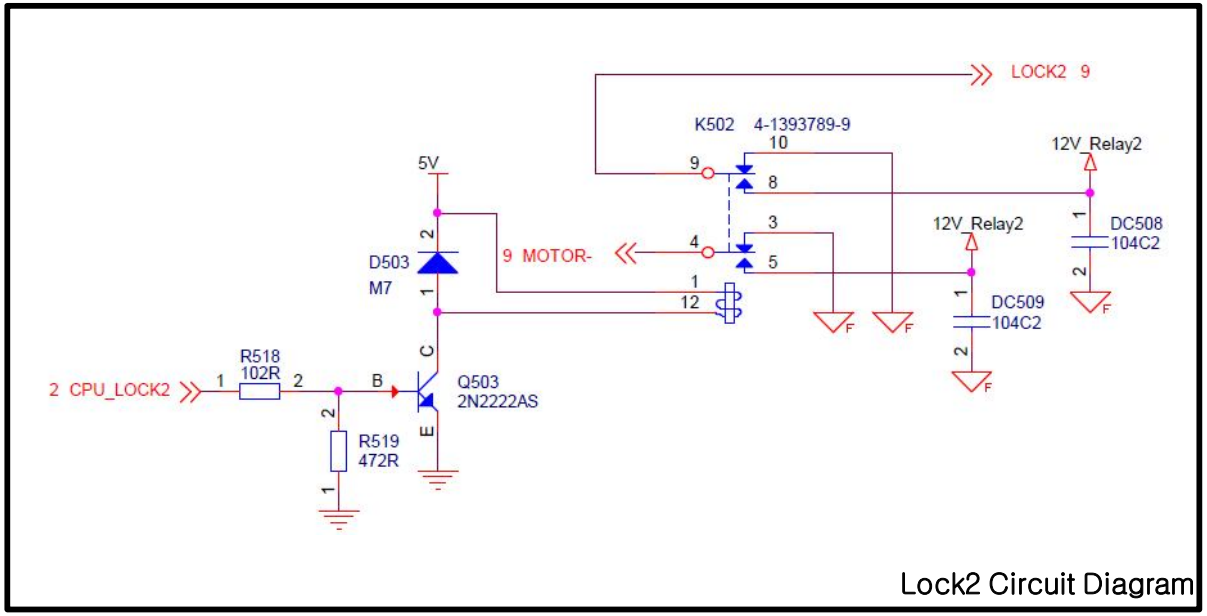
SW502

Lock1 Power OFF(Cut) ⟷ Lock1 Power ON(Connect)





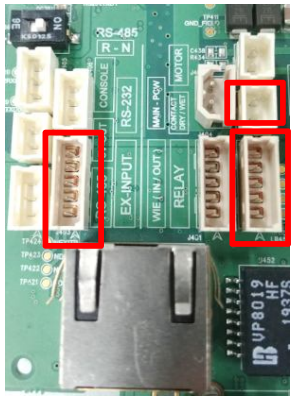
Lock1 Circuit Diagram



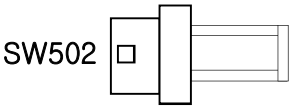
Lock2 Circuit Diagram

5. Connecting a Dead-Bolt Type Door Lock (Fail Safe)

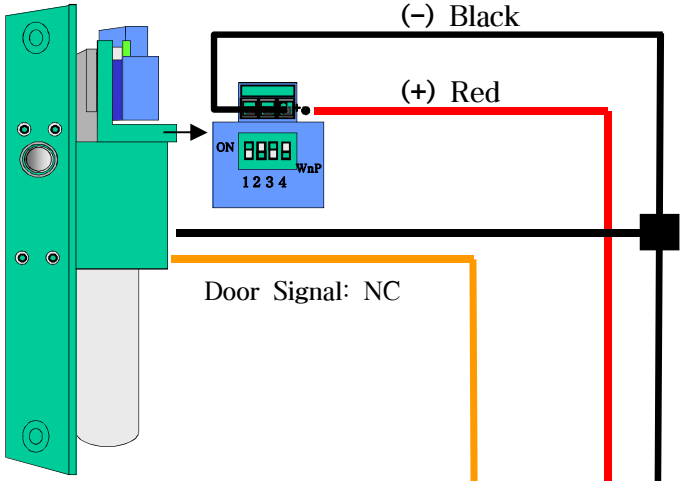
5.1. Connecting One System/ One Lock

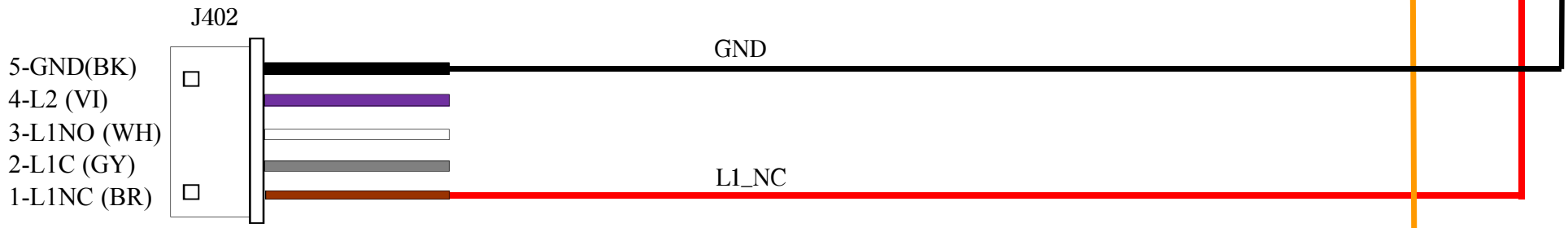


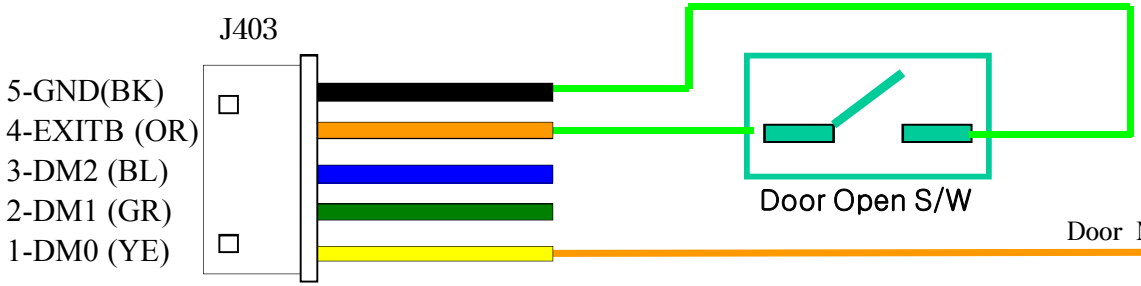
Lock Type Select S/W(P)



<DB Door Signal>
Closed: NO-COM, Short
NC-COM, Open
Opened: NO-COM, Open
NC-COM, Short

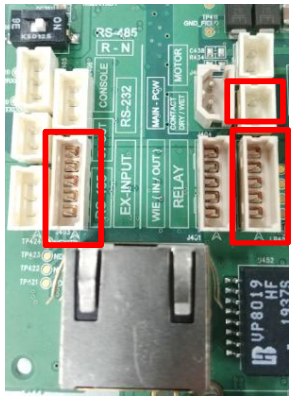




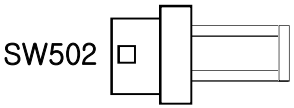


5. Connecting a Dead-Bolt Type Door Lock (Fail Safe)

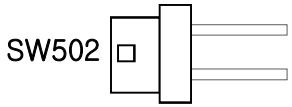
5.2. Connecting Two Systems/ One Lock

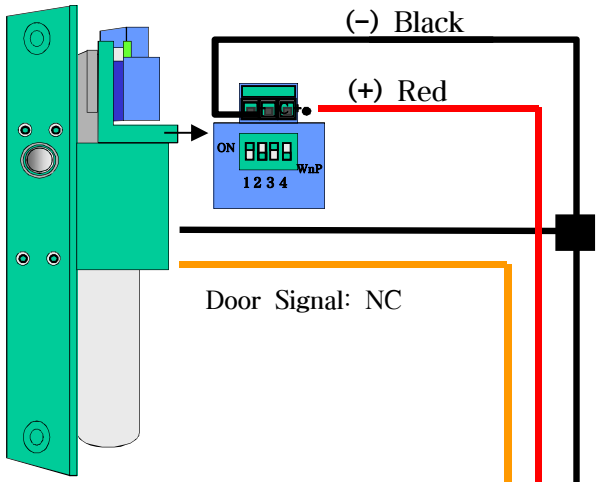


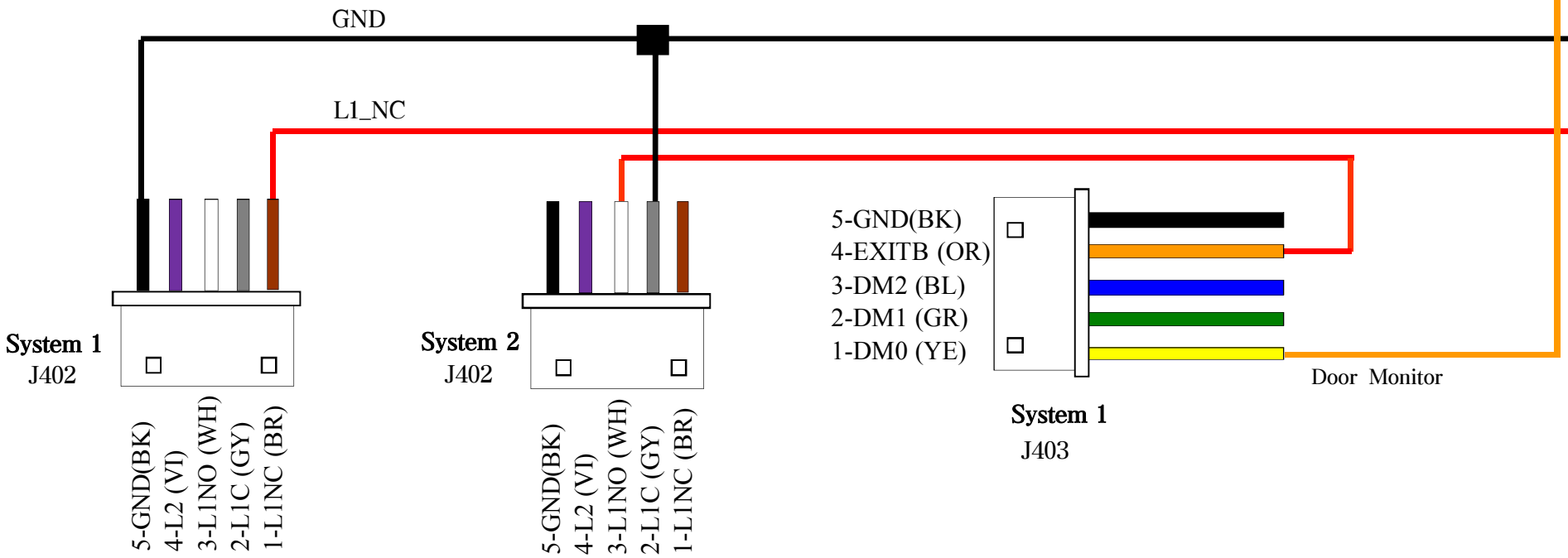
System 1
Lock Type Select S/W(P)



System 2
Lock Type Select S/W(NP)

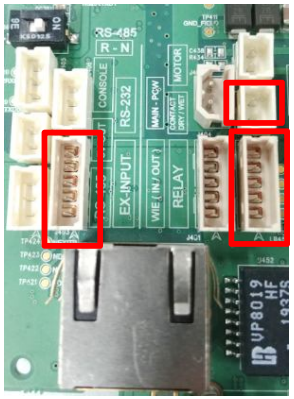




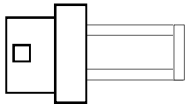


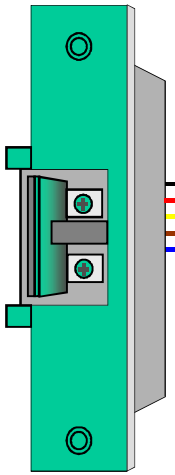
6. Connecting a Strike Type Door Lock (Fail Safe)

6.1. Connecting One System/ One Lock



Lock Type Select S/W(P)





(−) Black
(+) Red

Door Signal: NC

J402

5-GND(BK)
4-L2 (VI)
3-L1NO (WH)
2-L1C (GY)
1-L1NC (BR)

GND

L1_NC

J403

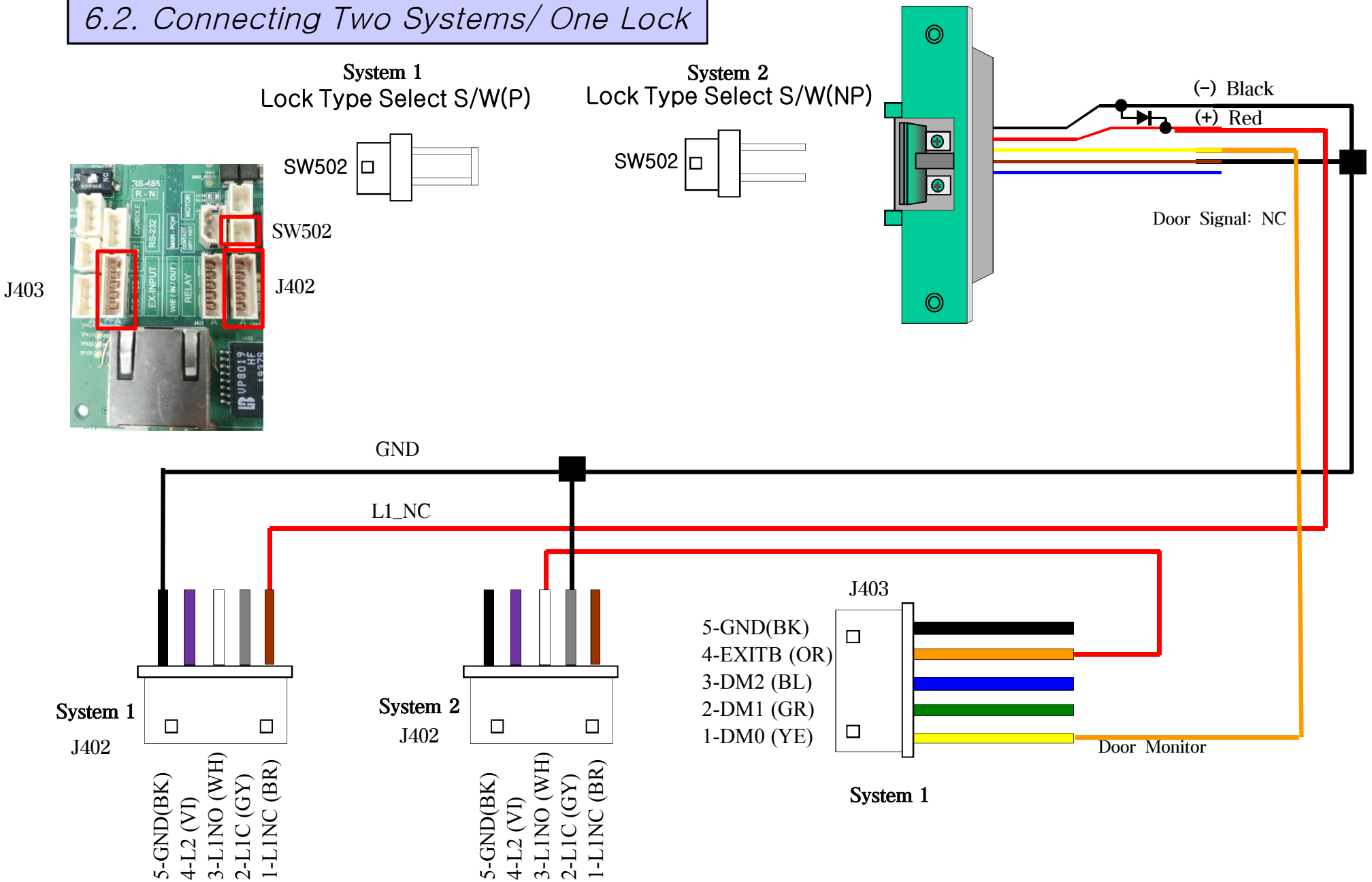
5-GND(BK)
4-EXITB (OR)
3-DM2 (BL)
2-DM1 (GR)
1-DM0 (YE)

Door Open S/W

Door Monitor

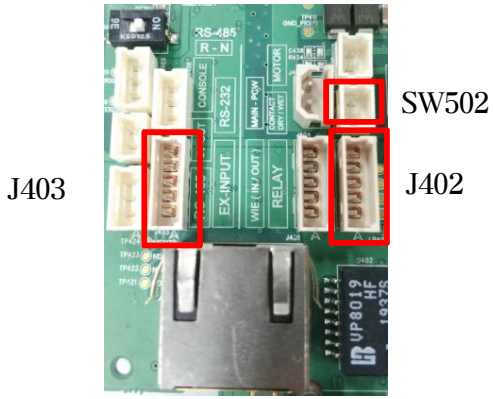
6. Connecting a Strike Type Door Lock (Fail Safe)

6.2. Connecting Two Systems/ One Lock

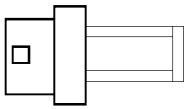


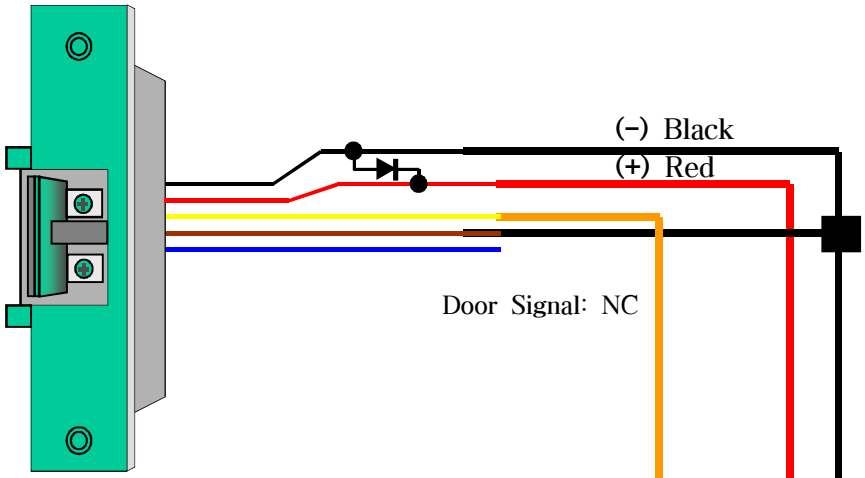
7. Connecting a Strike Type Door Lock (Fail Secure)

7.1. Connecting One System/ One Lock



Lock Type Select S/W(P)





J402

5-GND(BK)
4-L2 (VI)
3-L1NO (WH)
2-L1C (GY)
1-L1NC (BR)

GND

L1_NO

J403

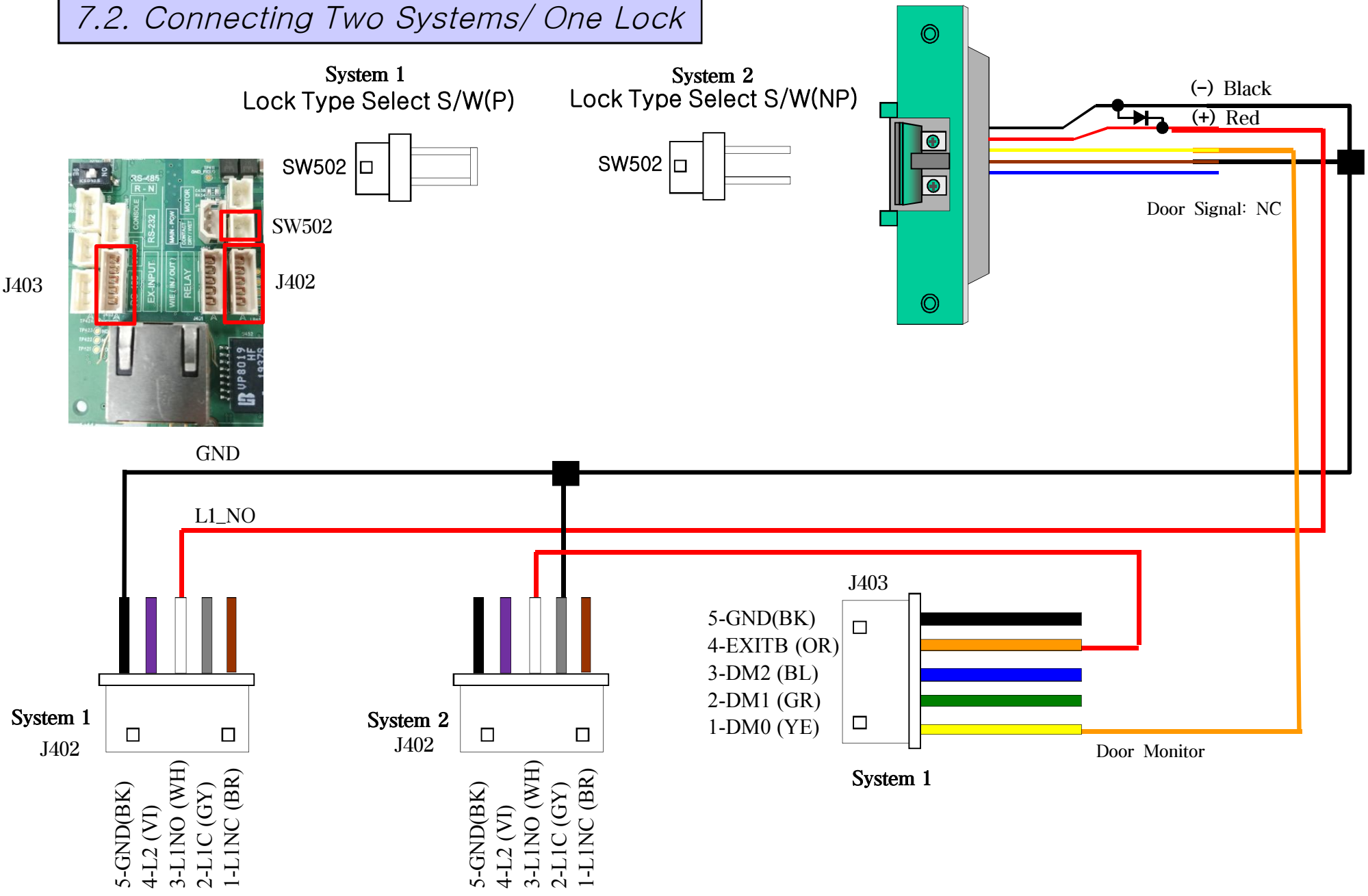
5-GND(BK)
4-EXITB (OR)
3-DM2 (BL)
2-DM1 (GR)
1-DM0 (YE)

Door Open S/W

Door Monitor

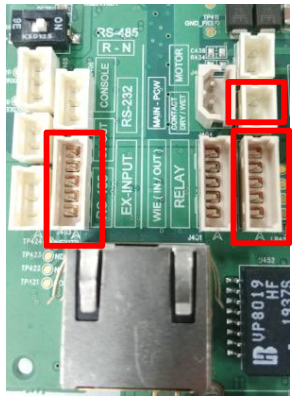
7. Connecting a Strike Type Door Lock (Fail Secure)

7.2. Connecting Two Systems/ One Lock

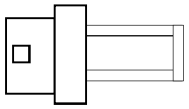


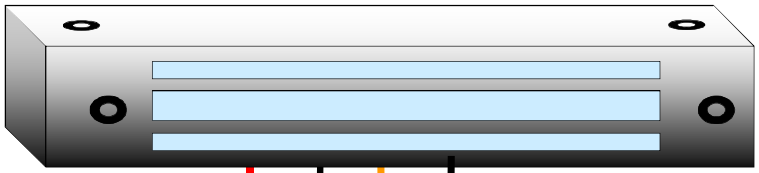
8. Connecting an EM Type Door Lock (Fail Safe)

8.1. Connecting One System/ One Lock



Lock Type Select S/W





<EM Door Signal>
Closed: NO-COM, Short
NC-COM, Open
Opened: NO-COM, Open
NC-COM, Short

(+) Red
(-) Black
Door Signal: NC

J402

5-GND(BK)
4-L2 (VI)
3-L1NO (WH)
2-L1C (GY)
1-L1NC (BR)

GND
L1_NC

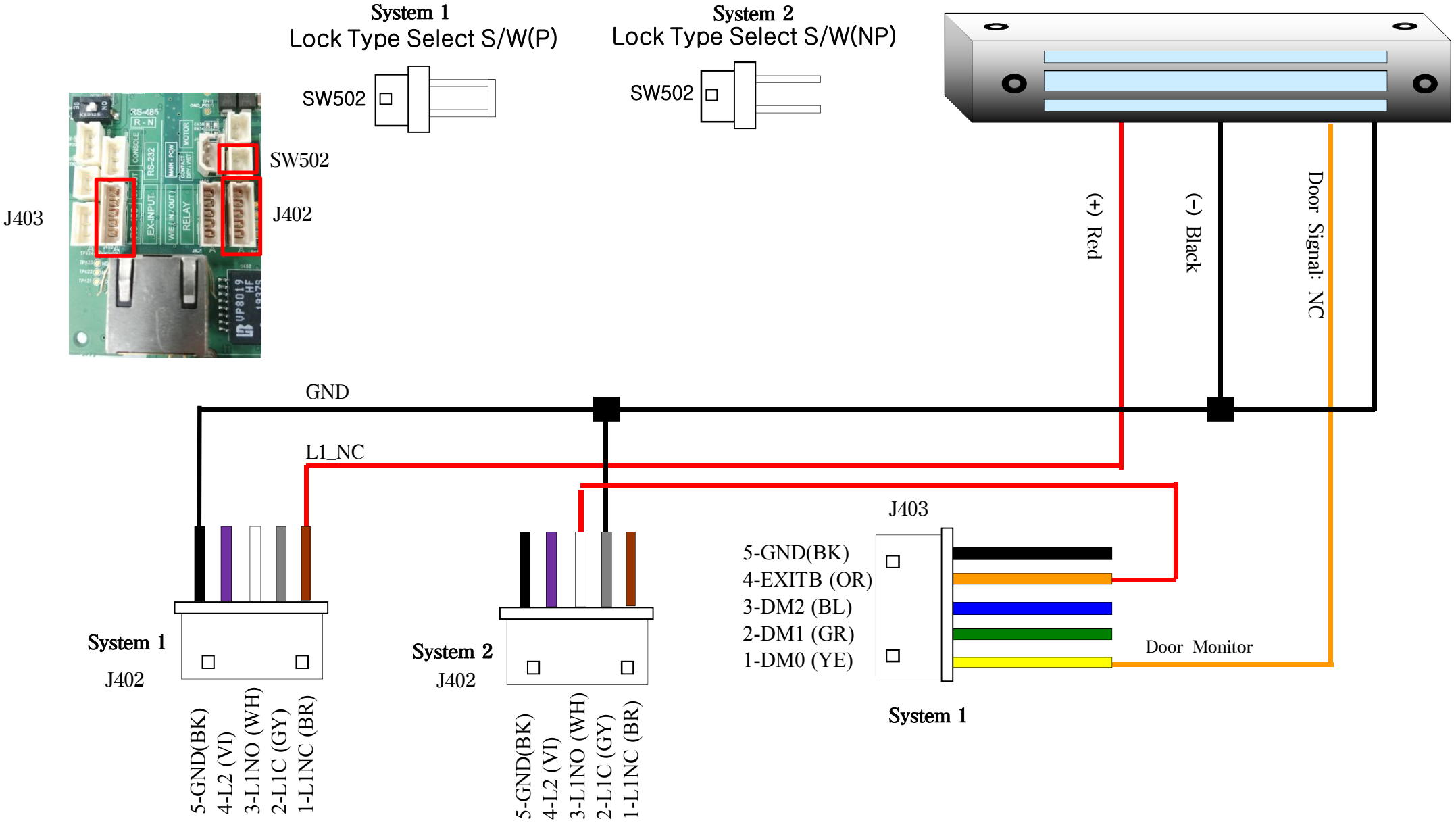
J403

5-GND(BK)
4-EXITB (OR)
3-DM2 (BL)
2-DM1 (GR)
1-DM0 (YE)

Door Open S/W
Door Monitor

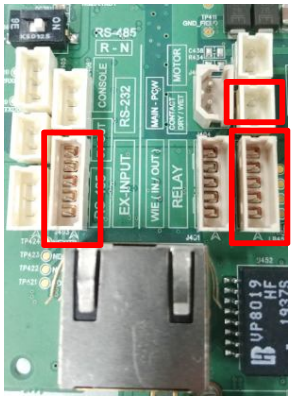
8. Connecting an EM Type Door Lock (Fail Safe)

8.2. Connecting Two Systems/ One Lock



8. Connecting an EM Type Door Lock (Fail Safe)

8.3. Connecting One System/ Two Locks " Use external DC Power adapter"



Lock Type Select S/W(NP)

SW502

Lock 1

- (Black)

+ (Red)

12V 3.5A Adapter

(-)

(+)

GND

L1_NC

Door Monitor

Door Signal: NC

J402

5-GND(BK)
4-L2 (VI)
3-L1NO (WH)
2-L1C (GY)
1-L1NC (BR)

J403

5-GND(BK)
4-EXITB (OR)
3-DM2 (BL)
2-DM1 (GR)
1-DM0 (YE)

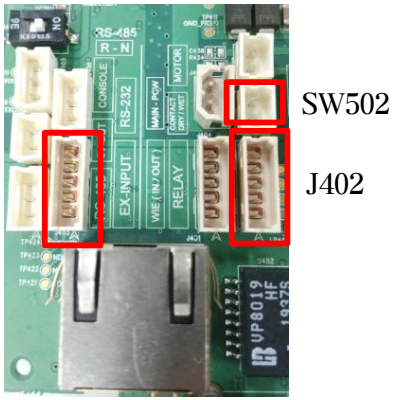
Door Open S/W

Lock 2

9.1. Connecting One System/ One Door

Lock Type Select S/W(NP)

SW502



Auto Door Operating Part

Auto Door Motor

Auto-Door Sensor

Auto-Door Monitor

Sensor Input Line

9P CONN

L1_NO

L1_COM

J402

5-GND(BK)
4-L2 (VI)
3-L1NO (WH)
2-L1C (GY)
1-L1NC (BR)

J403

5-GND(BK)
4-EXITB (OR)
3-DM2 (BL)
2-DM1 (GR)
1-DM0 (YE)

Door Open S/W

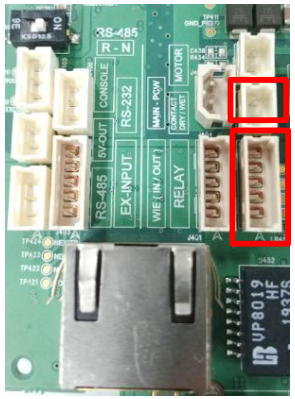
9.2. Connecting Two Systems/ One Door

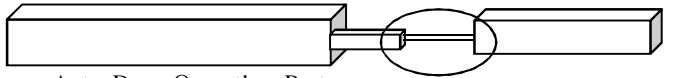
System 1
Lock Type Select S/W(NP)

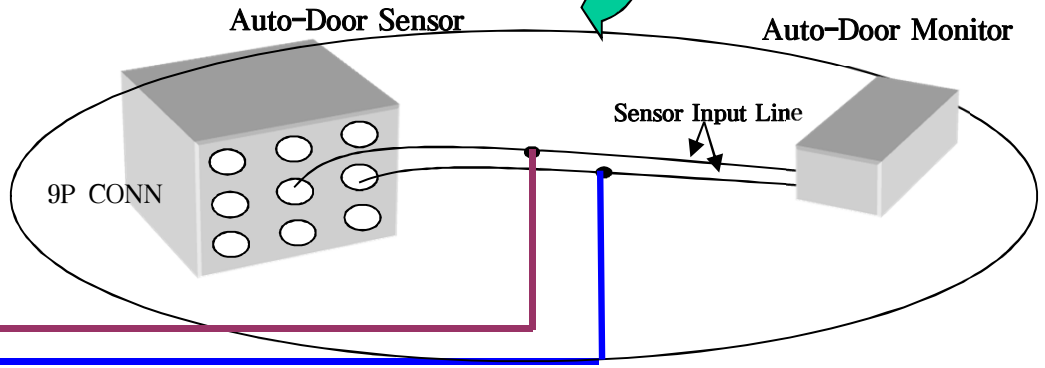
SW502

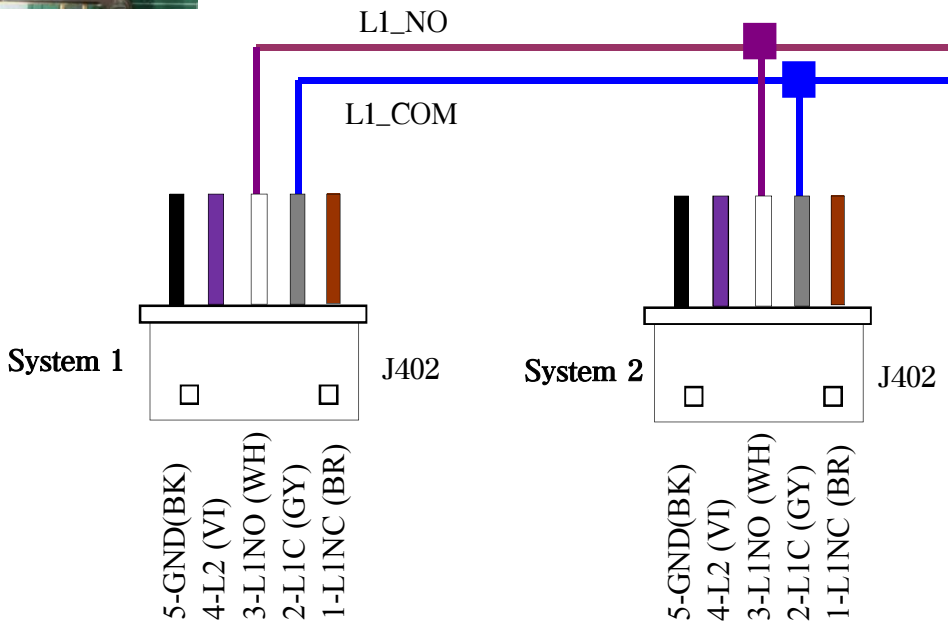
System 2
Lock Type Select S/W(NP)

SW502

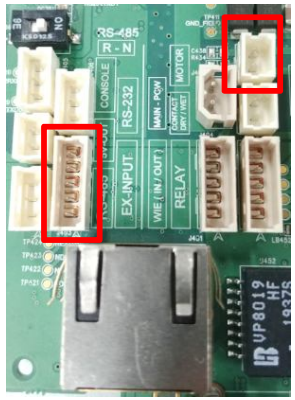








10. Connecting a Motorised Lock



Blue : Motor 2
Brown : Motor 1
Orange : Door Monitor(NO)
White : Ground
Yellow : Lock NC Signal
Black : Ground
Red : Lock NO Signal

- Motor Lock SPEC. : U9AL3MHD (DC24/0.3A).

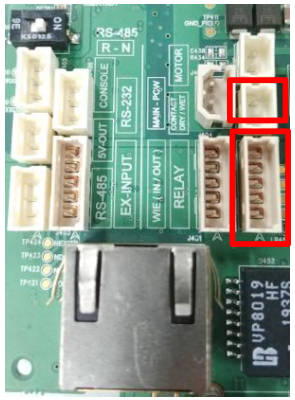
Motor 1
Motor 2
DM0
Door Monitor(NO)
DM1
Lock NC Signal(NC)

J408
Motor- (Brown)
Motor+ (Yellow)

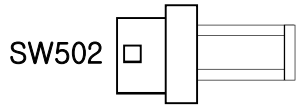
J403
5-GND(BK)
4-EXITB (OR)
3-DM2 (BL)
2-DM1 (GR)
1-DM0 (YE)

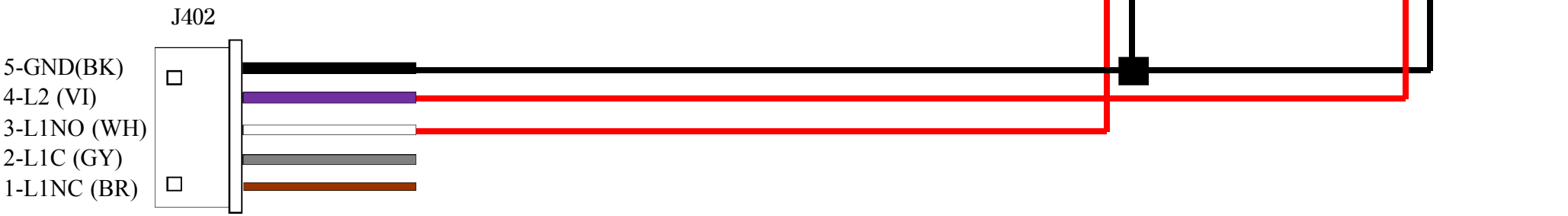
Exit B
Door Open S/W
Ground

11. Connecting Two Emergency Lamps



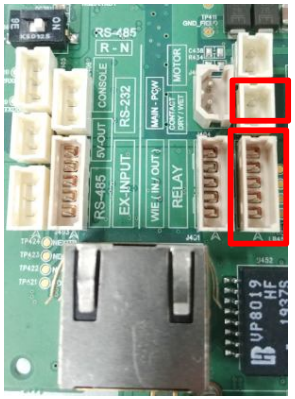
Lock Type Select S/W(P)



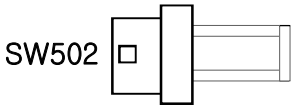


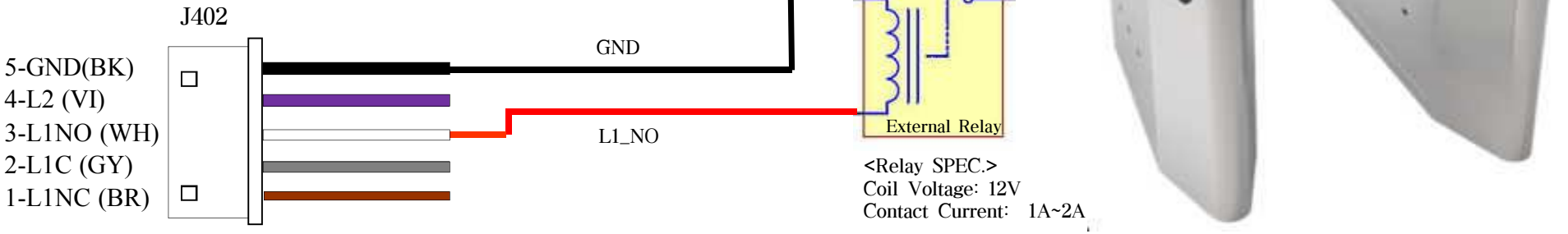
12.1 How to connect an external relay

** It is recommended to connect an external relay if a problem occurs after connection with an external equipment such as a speed gate.

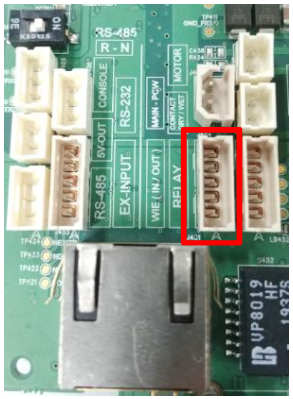


Lock Type Select S/W(P)



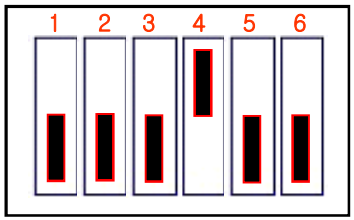


12.2 How to connect the VS-R20D RF Dummy Card Reader



J404

SW51 Select S/W

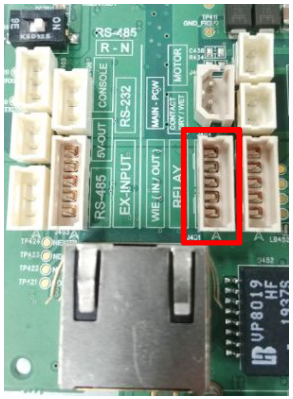


* 1, 2, 3 OFF: 26Bit
* 4 ON: Wiegand Mode

Adapter

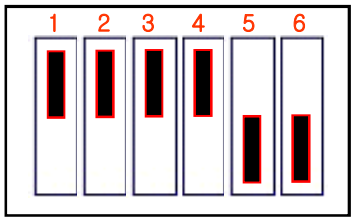
Wiegand Cable (5P)

12.3 How to connect the VS-R20D SC Dummy Card Reader



J404

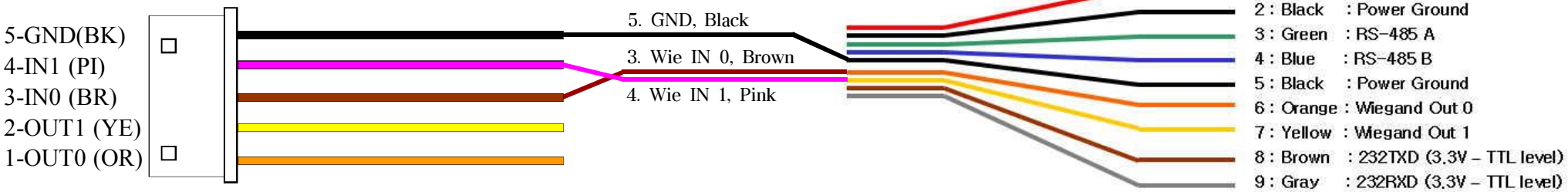
SW51 Select S/W



* 1, 2, 3 ON: 34Bit
* 4 ON: Wiegand Mode

Adapter

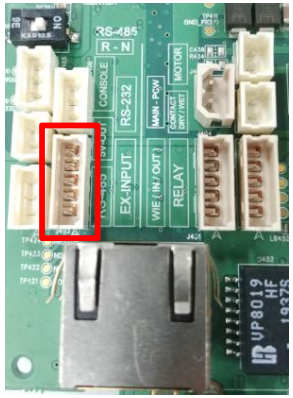
Wiegand Cable (5P)

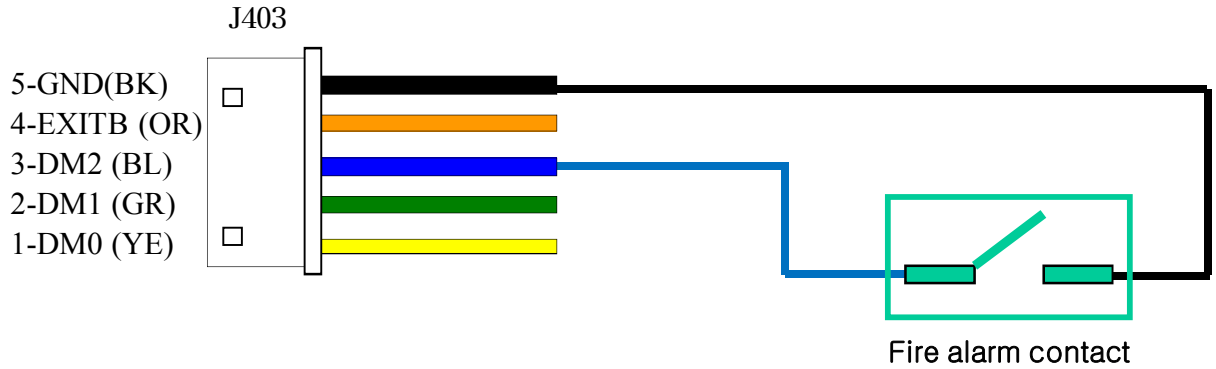


J404

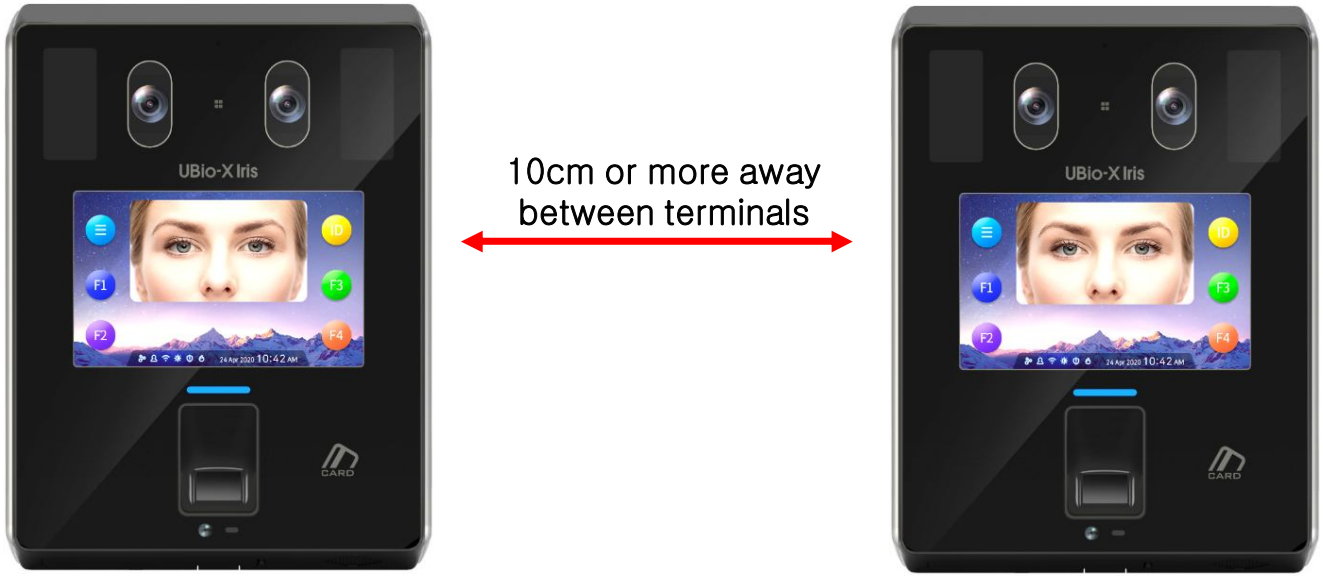
12.4 How to connect to a fire alarm

J403





** Recommend installation guide1 (RF & SC Card)



** In order to prevent RF / SC card antenna interference between products, install at least 10cm apart from each other.

** Card recognition distance may be reduced when installed within 10cm.

** Recommend installation guide 2