



[www.supremainc.com](http://www.supremainc.com)



Innovative Fingerprint Terminal

# Installation Guide

(ver 1.0)

## Contents

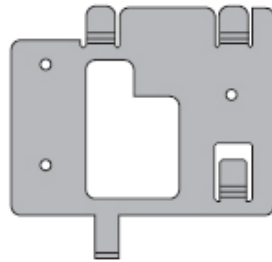
<b>Product Contents</b>	<b>3</b>
<b>Connectors for External Interfaces</b>	<b>5</b>
<b>Cable and Connector Pinout</b>	<b>6</b>
<b>Installation Example</b>	<b>7</b>
<b>Product Dimension</b>	<b>8</b>
<b>Installation of Wall-mount Bracket</b>	<b>9</b>
<b>Power Connection</b>	<b>10</b>
<b>USB Cable Connection</b>	<b>11</b>
<b>LAN Connection</b>	<b>12</b>
<b>Wireless LAN Connection</b>	<b>13</b>
<b>RS485 Network Connection</b>	<b>14</b>
<b>USB Memory Connection</b>	<b>15</b>
<b>Intercom Connection</b>	<b>16</b>
<b>Relay Connection – Fail Safe Lock</b>	<b>17</b>
<b>Relay Connection – Fail Secure Lock</b>	<b>18</b>
<b>Relay Connection - Automatic Door</b>	<b>19</b>
<b>TTL Input Port Connection – RTE Switches</b>	<b>20</b>
<b>TTL Output Port Connection</b>	<b>21</b>
<b>Wiegand Input Connection – External reader</b>	<b>22</b>
<b>Wiegand Output Connection – Control Panel</b>	<b>23</b>
<b>Ferrite Core Installation</b>	<b>24</b>
<b>Electrical Specification</b>	<b>25</b>

## Product Contents

### ■ Basic Contents



BioStation fingerprint terminal



Wall mounting metal bracket



Wall mounting screws and holders - 3 ea



Star-shaped screw for fixing main body



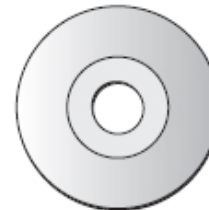
USB cable



Star-shaped small wrench



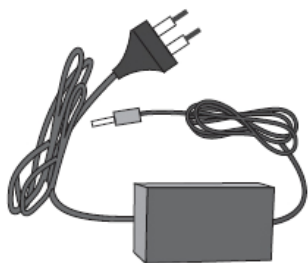
5pin, 3pin, 6pin, 4pin, 7pin cable – 1 ea



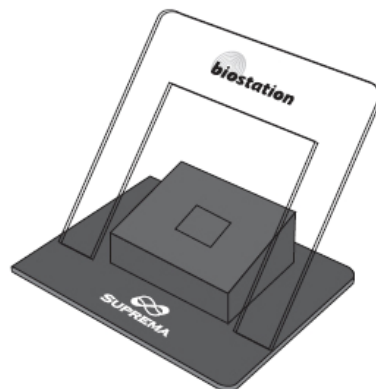
Software CD

## Product Contents

### ■ Optional accessories



12V power adaptor



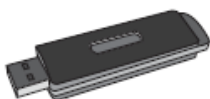
Plastic stand type A



Plastic stand type B



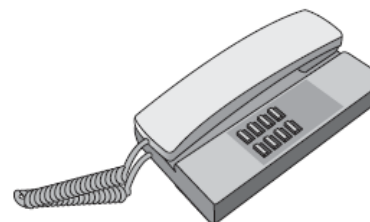
USB fingerprint scanner  
for enrollment on PC



USB memory



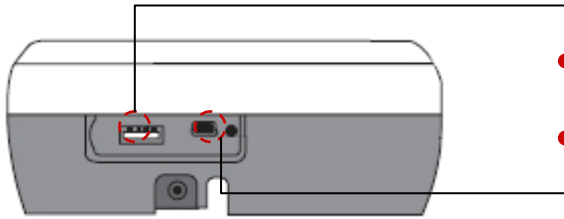
Wireless LAN Access Point



Interphone

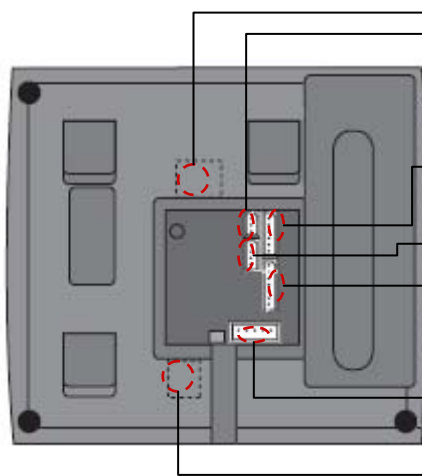
## Connectors for External Interfaces

### ■ Bottom



- Slot for USB memory device : USB type A
- Slot for PC USB connection : Mini USB

### ■ Rear



- Ethernet cable connector : RJ45
- 3pin cable connector - Door
- 6pin cable connector – Input/Output or Wiegand
- 4pin cable connector - RS485
- 7pin cable connector - RS232 or BEACon
- 5pin cable connector – Power and doorphone
- 12V power adaptor

## Cable and Connector Pinout

Power & Doorphone



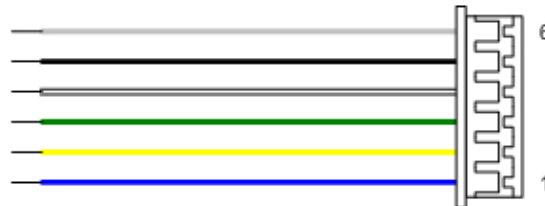
PIN	PIN DESCRIPTION	WIRE
1	POWER + (12Vdc)	RED
2	POWER -	BLACK
3	Doorphone AUDIO	ORANGE
4	Doorphone DATA	BLUE
5	SHIELD GND	GRAY

Relay



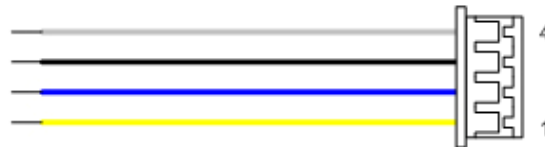
PIN	PIN DESCRIPTION	WIRE
1	NORMAL OPEN	WHITE
2	COMMON	BLUE
3	NORMAL CLOSE	ORANGE

TTL I/O or Wiegand



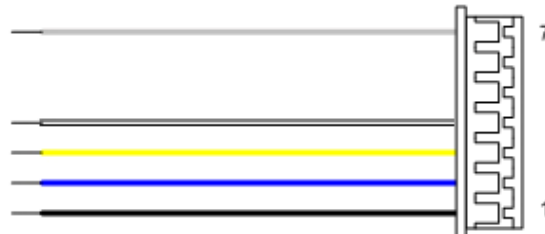
PIN	PIN DESCRIPTION	WIRE
1	TTL or Wiegand IN0	BLUE
2	TTL or Wiegand IN1	YELLOW
3	TTL or Wiegand OUT0	GREEN
4	TTL or Wiegand OUT1	WHITE
5	GND	BLACK
6	SHIELD GND	GRAY

RS485



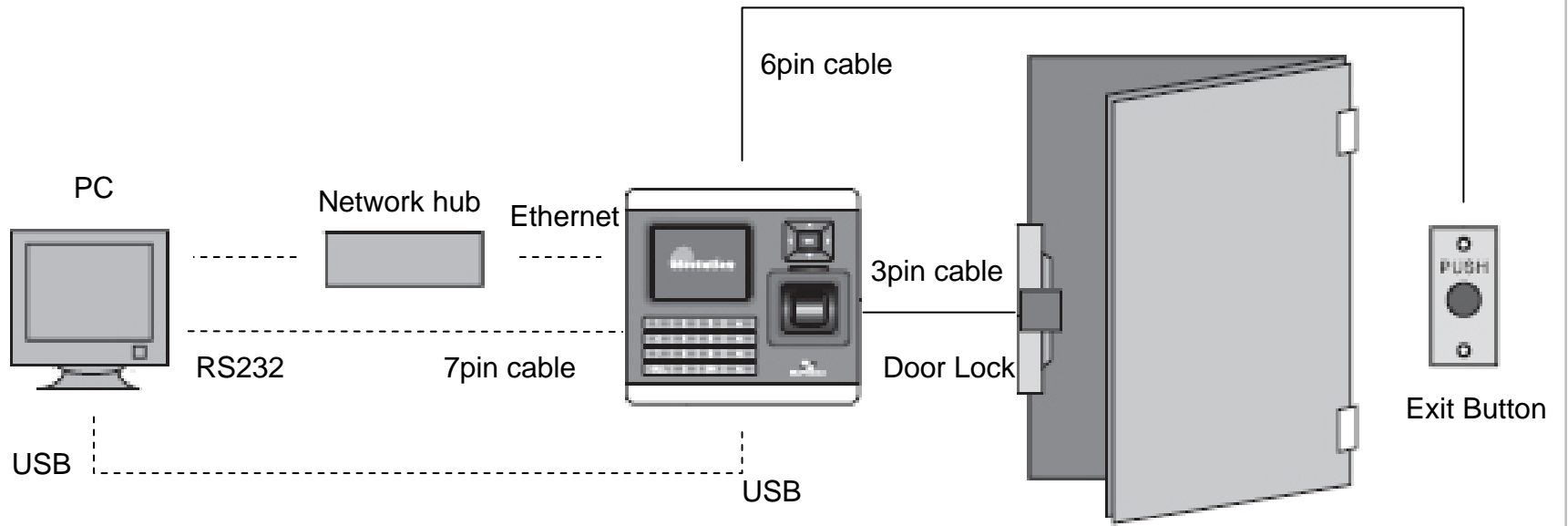
PIN	PIN DESCRIPTION	WIRE
1	TRX -	YELLOW
2	TRX +	BLUE
3	GND	BLACK
4	SHIELD GND	GRAY

RS232 or BEACon

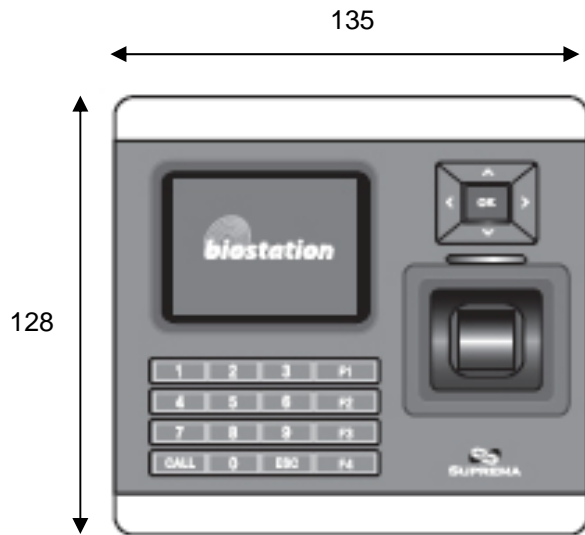


PIN	PIN DESCRIPTION	WIRE
1	GND	BLACK
2	RS-232 TX	BLUE
3	RS-232 RX	YELLOW
4	TTL OUT1	WHITE
7	SHIELD GND	GRAY

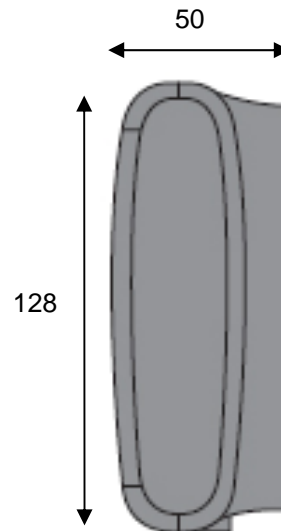
# Installation Example



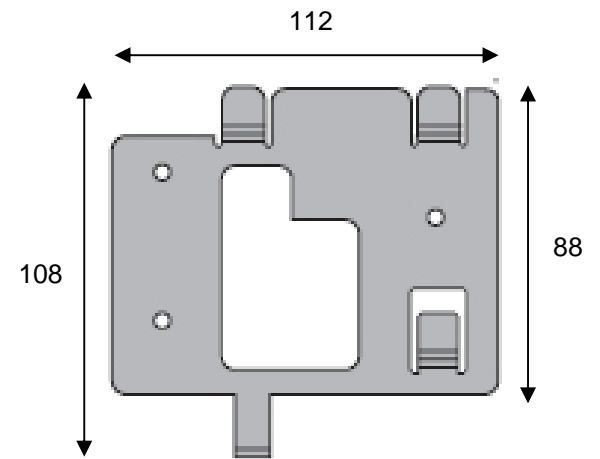
## Product Dimension



Front



Side



Bracket

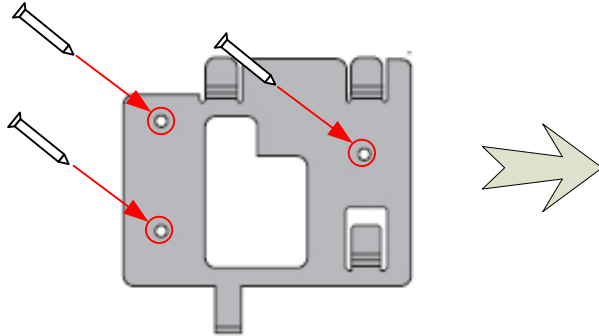
(unit : mm)



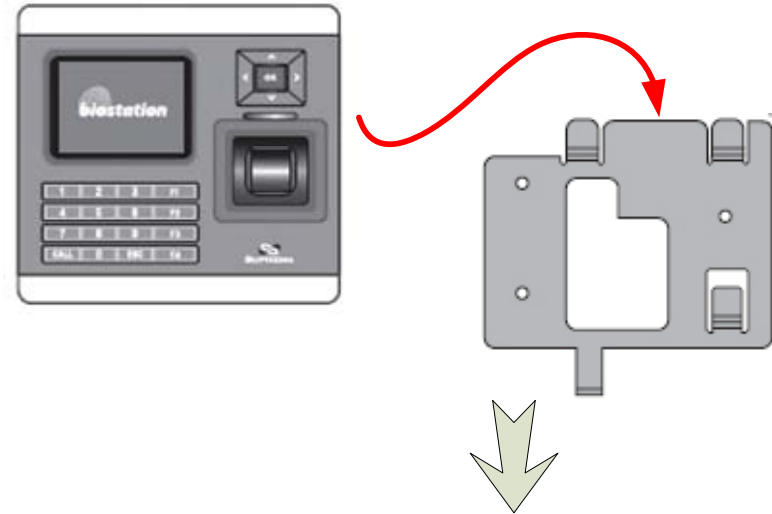
## Installation of Wall-mount Bracket

- **Fix wall mount bracket on a wall using wall mounting screws**

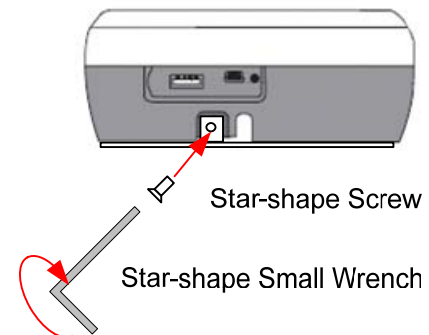
Wall Mounting  
Screws



- **Hook BioStation on the wall mount bracket.**



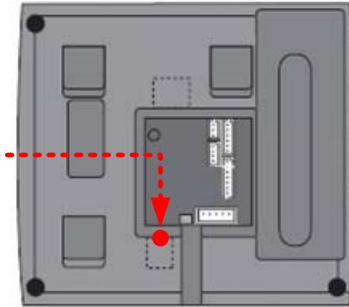
- **Fix BioStation and wall mounting bracket using a star shape screw.**



## Power Connection

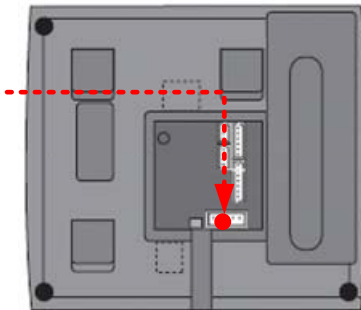
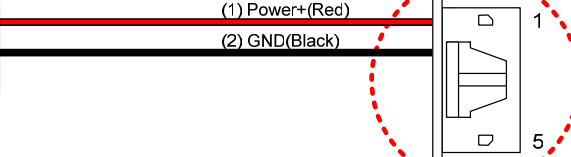
### Method 1

DC12V ADAPTOR



### Method 2

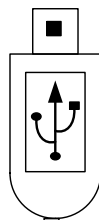
DC12V POWER



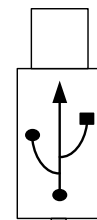
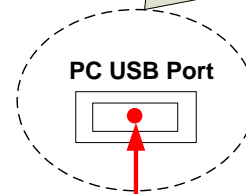
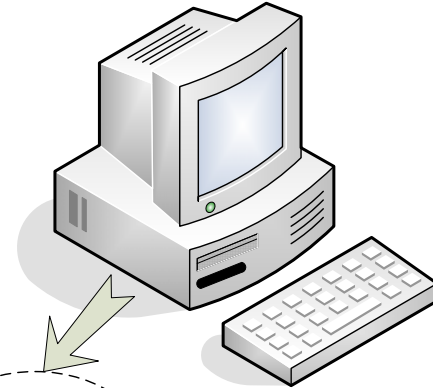
### Recommended power supply

- 12V  $\pm$  10%, at least 1500mA for BioStation alone installation.
- To share the power with other devices, use a power supply with higher current ratings.

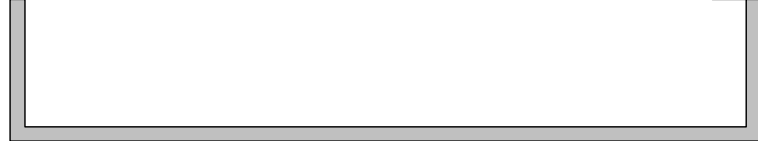
## USB Cable Connection



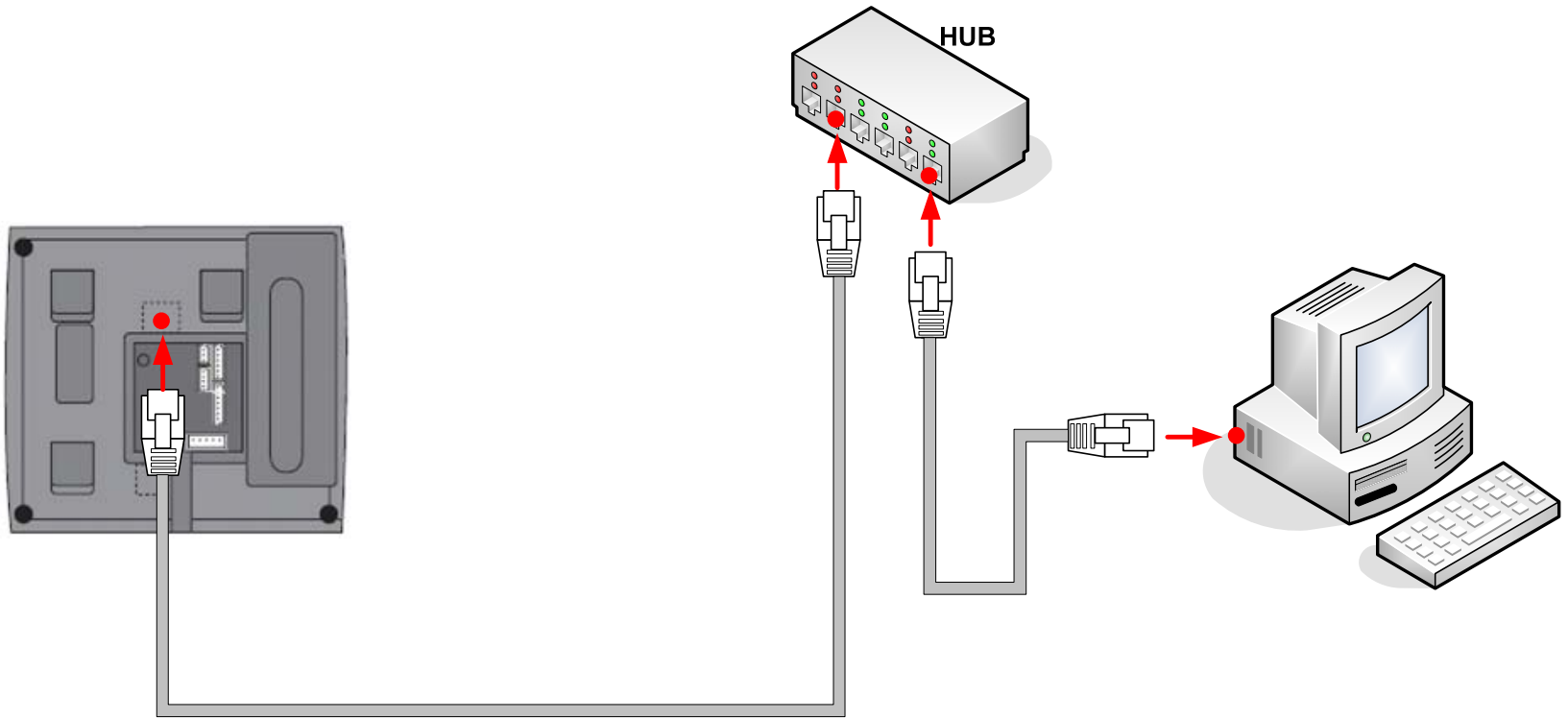
USB Mini Type



USB A Type

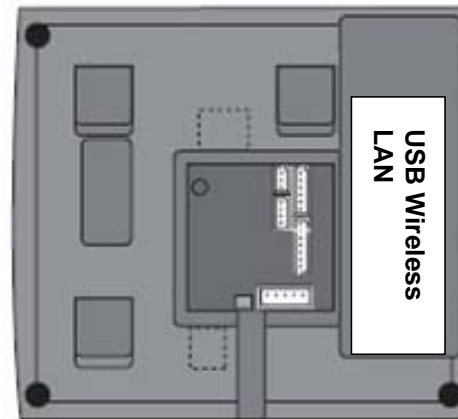
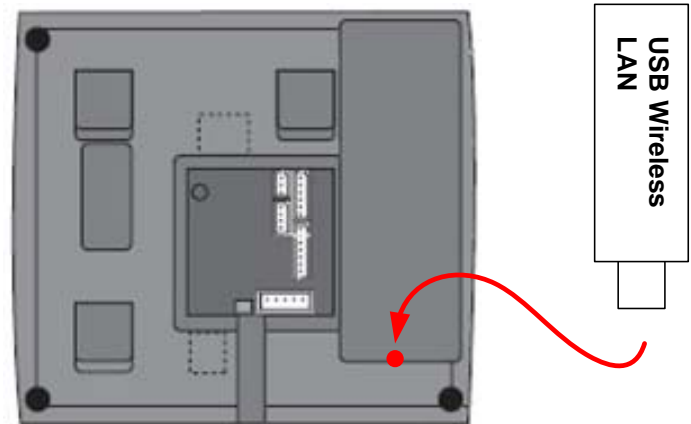


# LAN Connection

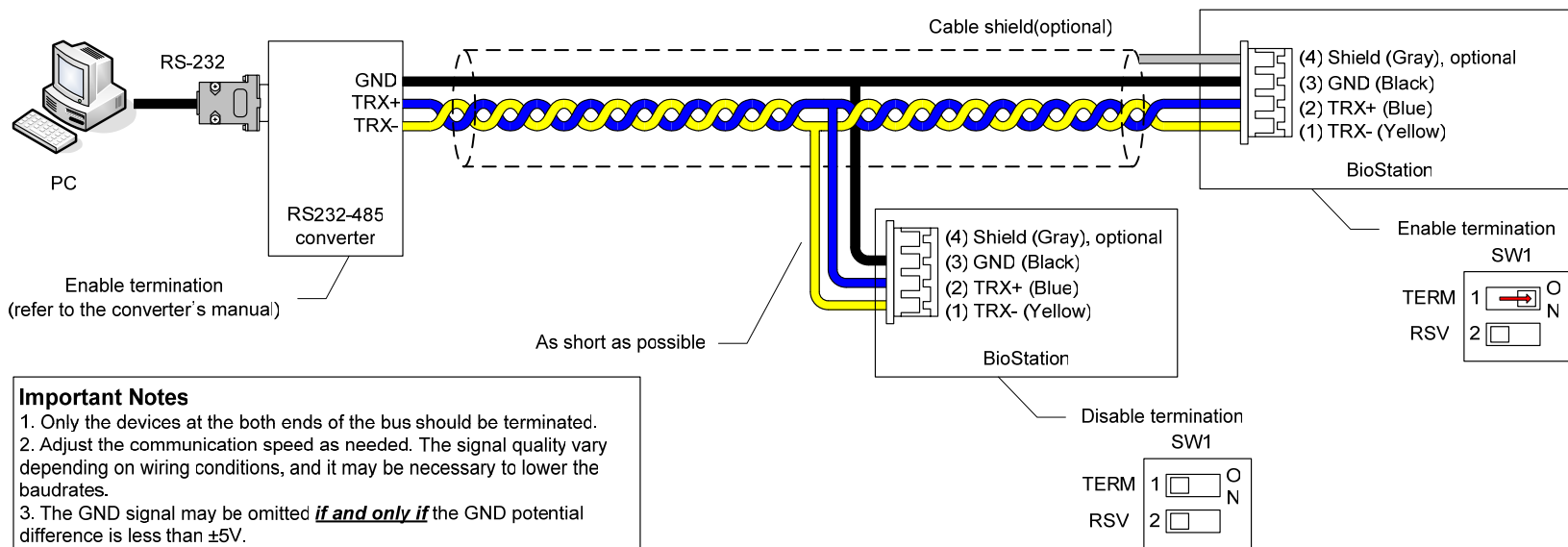


## Wireless LAN Connection

- Performance of wireless LAN is affected a lot by surrounding environments and the type of AP(Access Point).
- The list of APs with compatibility tested with BioStation is as follows.
  - Buffalo WHR-HP-G54
  - Cisco-Linksys WRTH54GS
  - 3COM OfficeConnect 3CRWE554G72T
- Using an AP other than these lists, wireless LAN communication may not work properly.

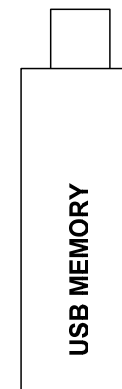


## RS485 Network Connection

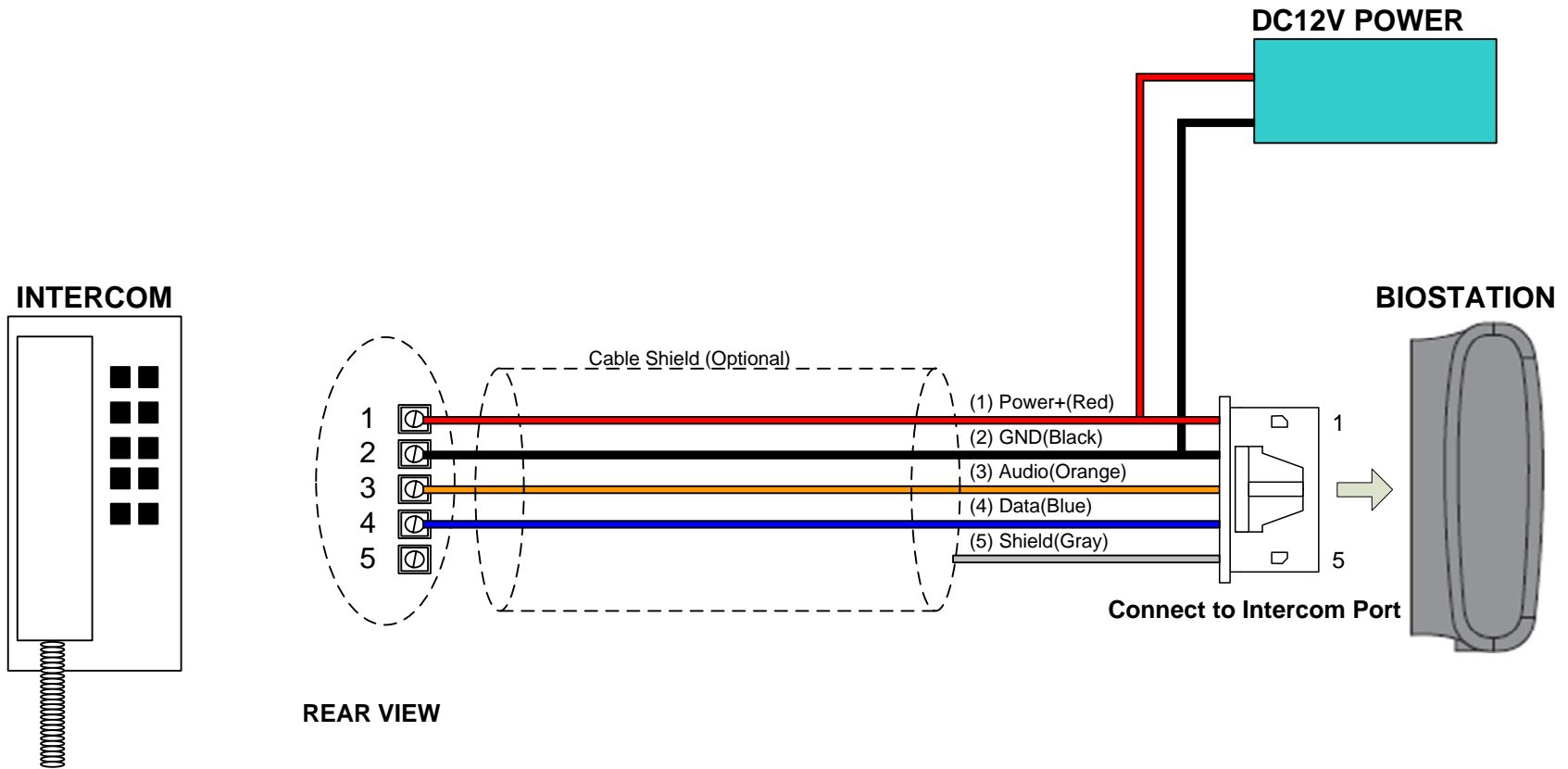


## USB Memory Connection

- **Because of hardware compatibility issue, some USB memory devices may not work properly.**
- **The following is a list of USB memory devices already tested with BioStation.**
  - SanDisk cruzer micro 512MB
  - Transcend JF110 512MB
  - Transcend JF150 512MB
  - LG XTICK 512MB
  - Samsung PLEOMAX SPUB-S50 1GB
  - Sony Microvault USM512J
  - Imation iFLASH Slim 512MB
  - Imation Swivel Pro 512MB
  - PQI Intelligent Stick 1GB

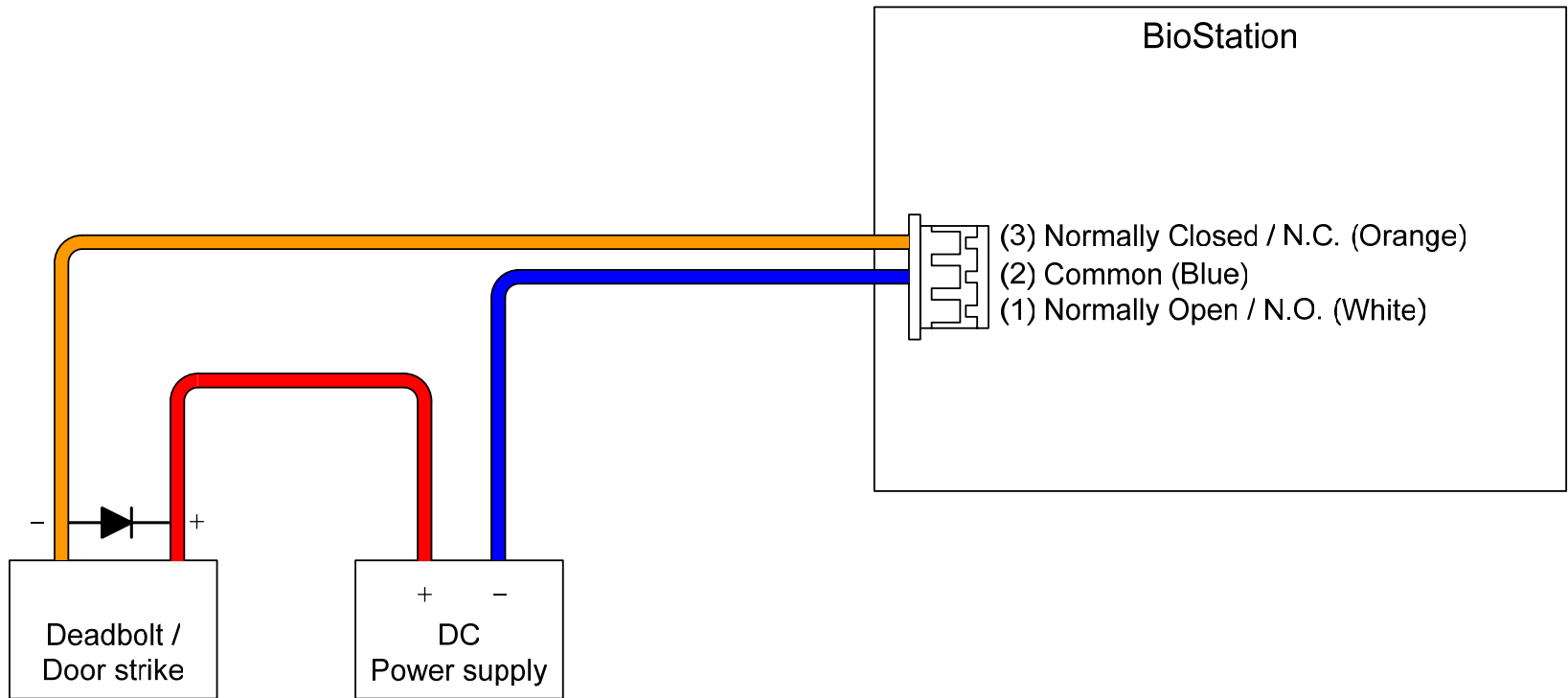


# Intercom Connection

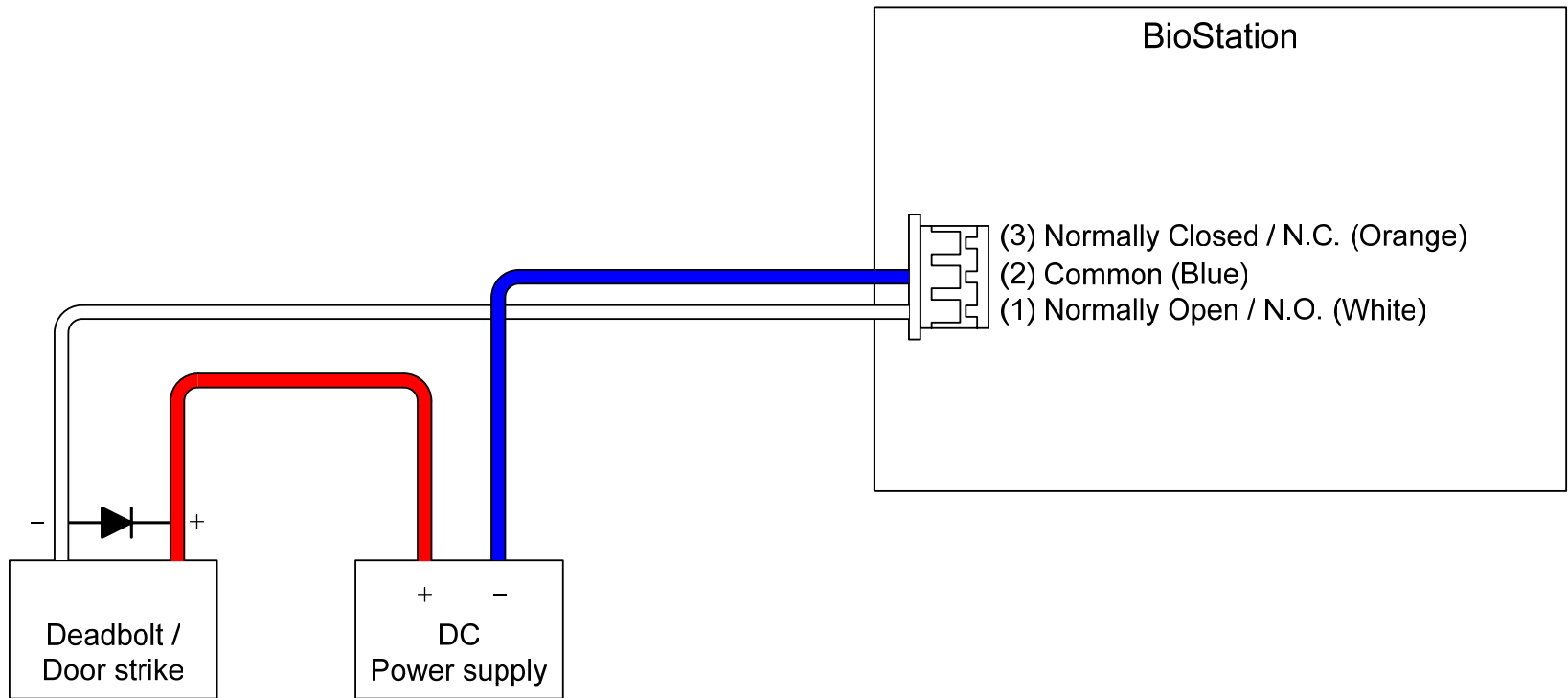




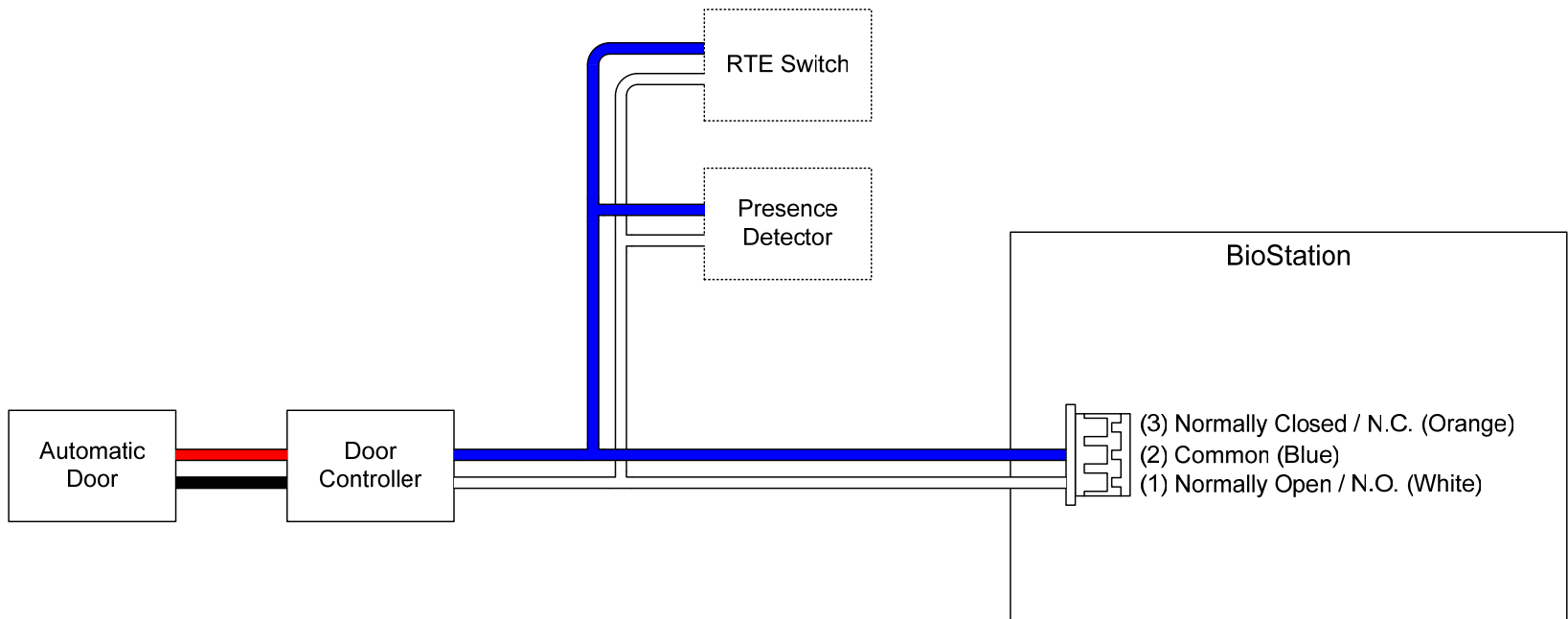
### Relay Connection – Fail Safe Lock



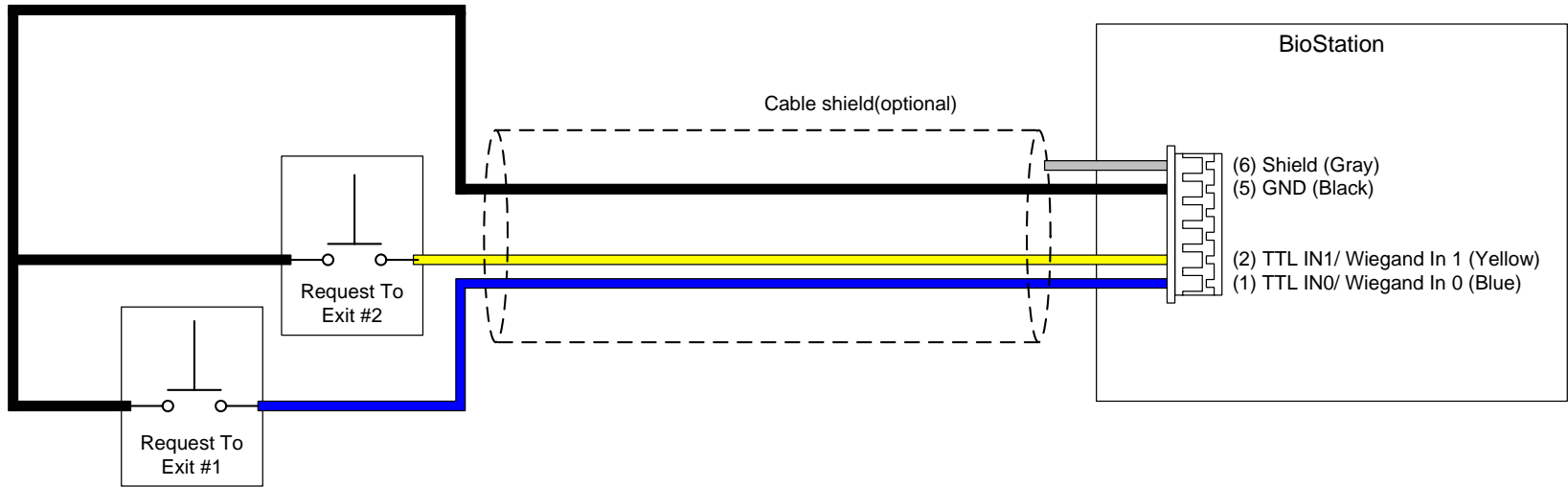
### Relay Connection – Fail Secure Lock



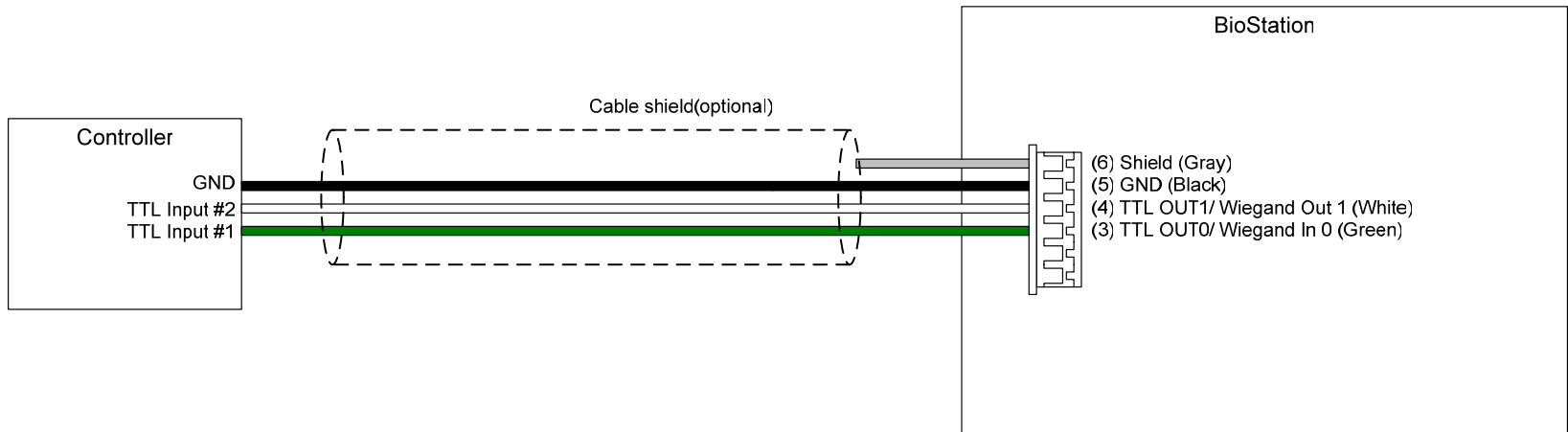
### Relay Connection - Automatic Door



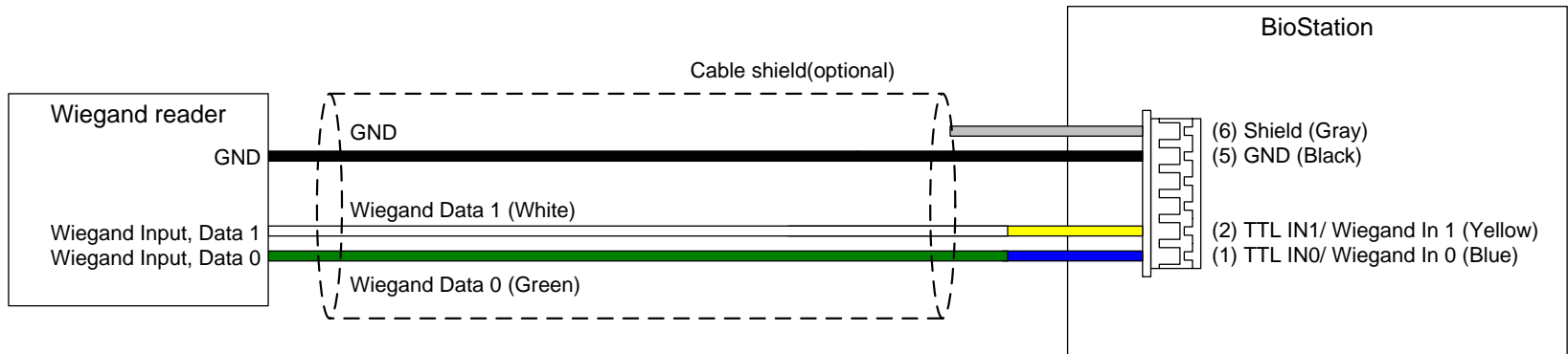
## TTL Input Port Connection – RTE Switches



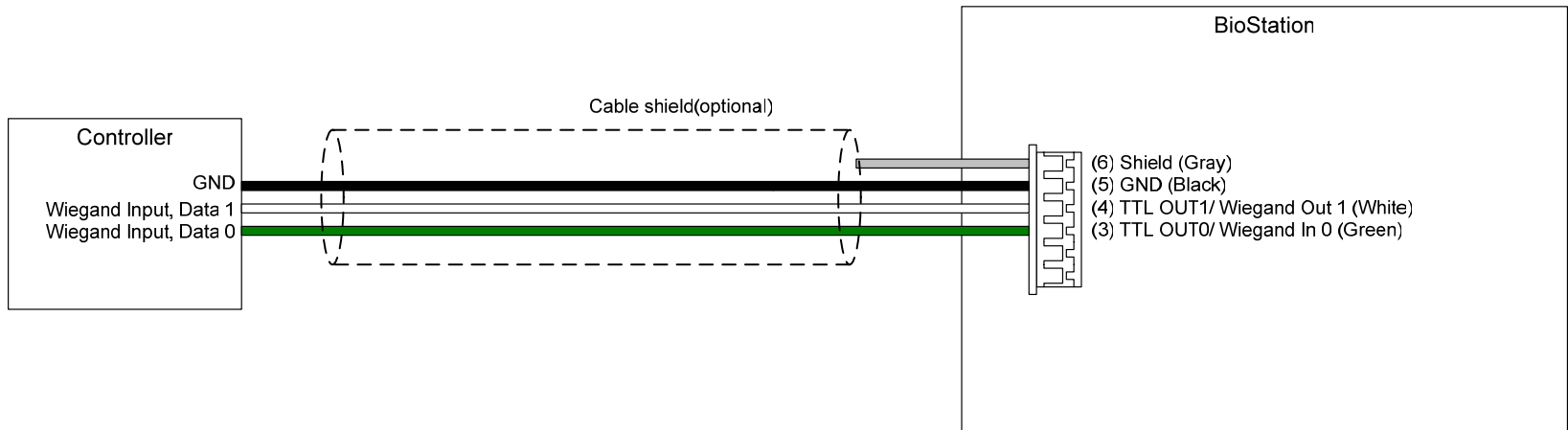
## TTL Output Port Connection



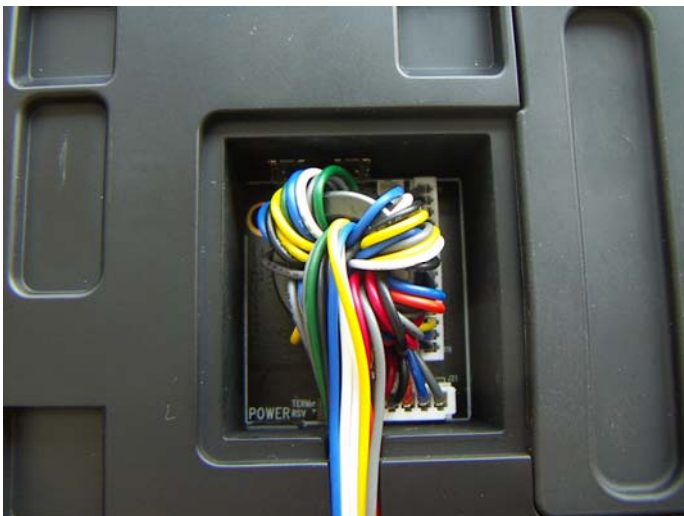
## Wiegand Input Connection – External reader



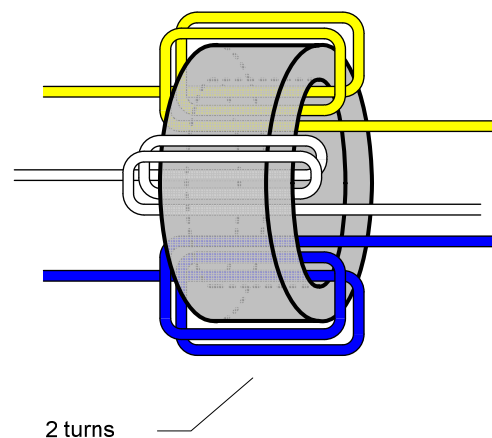
## Wiegand Output Connection – Control Panel



## Ferrite Core Installation



Core winding



**The following cables must be wound around the core (2 turns)**

1. RS232 cable
2. RS485 cable
3. Intercom/Power cable
4. TTL/Wiegand IO cable



## Electrical Specification

	Min.	Typ.	Max.	Notes
<b>Power</b>				
<b>Voltage (V)</b>	10.8	12	13.2	
<b>Current (mA)</b>	-	500	800	
<b>TTL/Wiegand Input</b>				
<b>V<sub>IH</sub> (V)</b>	2	-	-	
<b>V<sub>IL</sub> (V)</b>	-	-	0.8	
<b>Pull-up resistance (Ω)</b>	-	10k	-	
<b>TTL/Wiegand Output</b>				
<b>V<sub>OH</sub> (V)</b>	4	-	-	@ I <sub>OH</sub> = -5mA
<b>V<sub>OL</sub> (V)</b>	-	-	1	@ I <sub>OL</sub> = 5mA
<b>Output resistance (Ω)</b>	-	100	-	
<b>Relay</b>				
<b>Switching capacity (A)</b>	-	-	1 0.3	30V DC 125V AC
<b>Switching power (resistive)</b>	-	-	30W 37.5VA	DC AC
<b>Switching voltage (V)</b>	-	-	110 125	DC AC



**SUPREMA**

Suprema Inc.

16F Parkview Office Tower, Jeongja-dong, Bundang-gu,  
Seongnam, Gyeonggi, 463-863 Korea

E-mail : [support@supremainc.com](mailto:support@supremainc.com)

Website : [www.supremainc.com](http://www.supremainc.com)

---

Functions and specifications of the product are subject to changes without notice due to quality enhancement or function update. For any inquiry on the product, please contact **Suprema Inc.**