

A. Package content

- Controller X 1, Accessory kit X 1 (Plastic screw X 2, Fastening screw X 2, 1N4004 X 1), Cable (2pin X 1, 4pin X 1, 5pin X 1, 8pin X 1), CD X 1, Warranty card X 1, Installation Guide X 1

B. Installation

■ Preparation

- Wipe dust and wet from the wall.
- Fasten the waterproof plastic plate on the wall.
- Drill the holes indicating on the plastic plate.
- Fasten the plate with plastic screws to each holes.

■ Using the line hole under side

- Use the screw driver to open the back cover of host.
- Install the back cover by using the screws which attached inside.
- Please refer to process C to finish the installation.
- Pass the cable through the line hole under side.
- Combine the machine body, and then fix the screw under the machine.

■ Using the line hole at back cover

- Use the screw driver to open the back cover of host.
- Pass the cable through the line hole at the back cover.
- Install the back cover by using the screws which attached inside.
- Please refer to process C to finish the installation.
- Combine the machine body, and then fix the screw under the machine.

■ Physical Dimension: 80 X 120 X 25 (mm)

■ RECOMMENDED

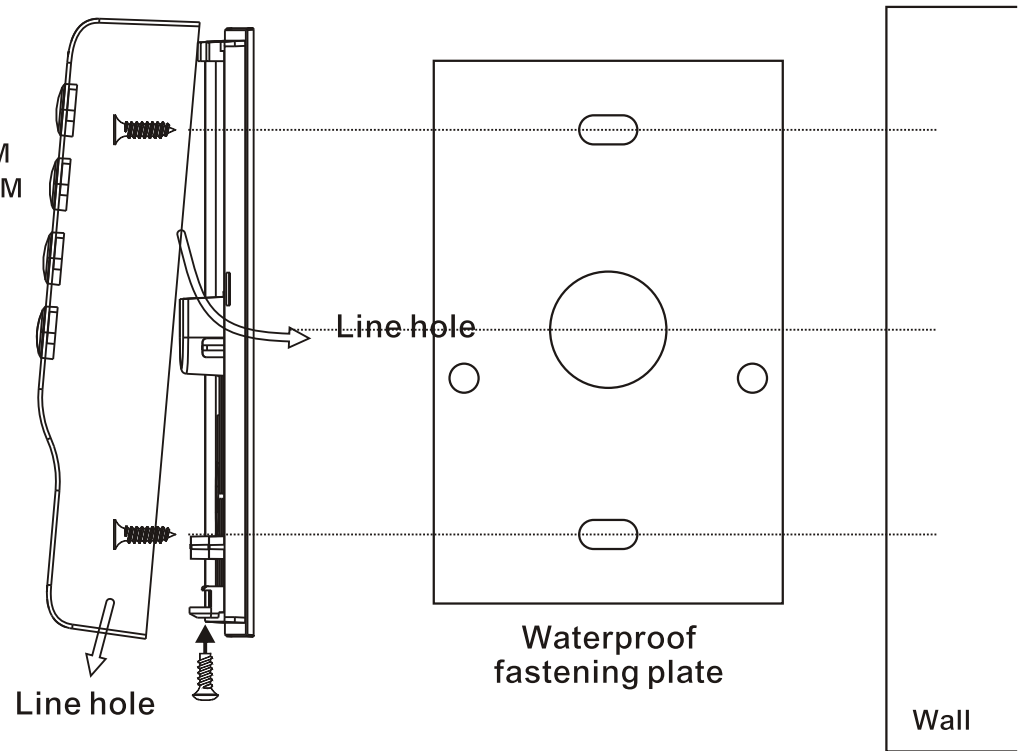
- Cable with shielded, Linear DC power supply, Network cable.

■ Notice

- Do not connect other cable to the power unit except the power cable.
- Do not apply any unverified power supply to the unit or the hardware system may be damaged or cause system to an unstable condition.

■ SPECIFICATIONS

- Voltage range: 9-24V DC
- Current max. Average: 600 mA
- Max distance for Wiegand is 80M
- Max distance for RS-485 is 1000M



C. System Connection

■ Connector Cable

J1	Cable		LAN Cable		RJ-45
	Pin	Color	Pin	Color	
1	TX+	BLACK	ORANGE	WHITE	
2	TX-	RED	ORANGE		
3	RX+	GREEN	GREEN	WHITE	
4	RX-	YELLOW	GREEN		

J9	Cable		LAN Cable		RJ-45
	Pin	Color	Pin	Color	
1	485-	GREY	485		
2	485+	BROWN			
3	FGND	ORANGE	GND		
4	OD0	RED WHITE	WIEGAND OUT		
5	OD1	BLACK WHITE			
6	GND	ORANGE	GND		
7	OUT	YELLOW WHITE	TTL(5V) output		
8	IN	BLUE WHITE	FIRE ALARM INPUT		

J3	Cable		LAN Cable		RJ-45
	Pin	Color	Pin	Color	
1	WID0	VIOLET WHITE	WIEGAND IN		
2	WID1	GREEN WHITE			
3	GND	ORANGE	GND		
4	BUZZ	BLUE BLACK	Control LED and Buzzer		
5	LED	YELLOW BLACK			

J4	Cable		LAN Cable		RJ-45
	Pin	Color	Pin	Color	
1	SENR	BLUE	SENSOR		
2	GND	ORANGE	GND		
3	DOOR	VIOLET	EXIT BUTTON		
4	NC	YELLOW			
5	COM	GREEN	DOOR RELAY		
6	NO	WHITE			

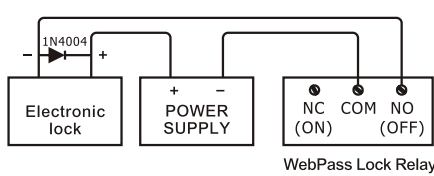
J8	Cable		LAN Cable		RJ-45
	Pin	Color	Pin	Color	
1	VIN-	BLACK	POWER		
2	VIN+	RED			

● BF-50 RJ-45 Cable Color for Connection Max distance for Wiegand is 80M

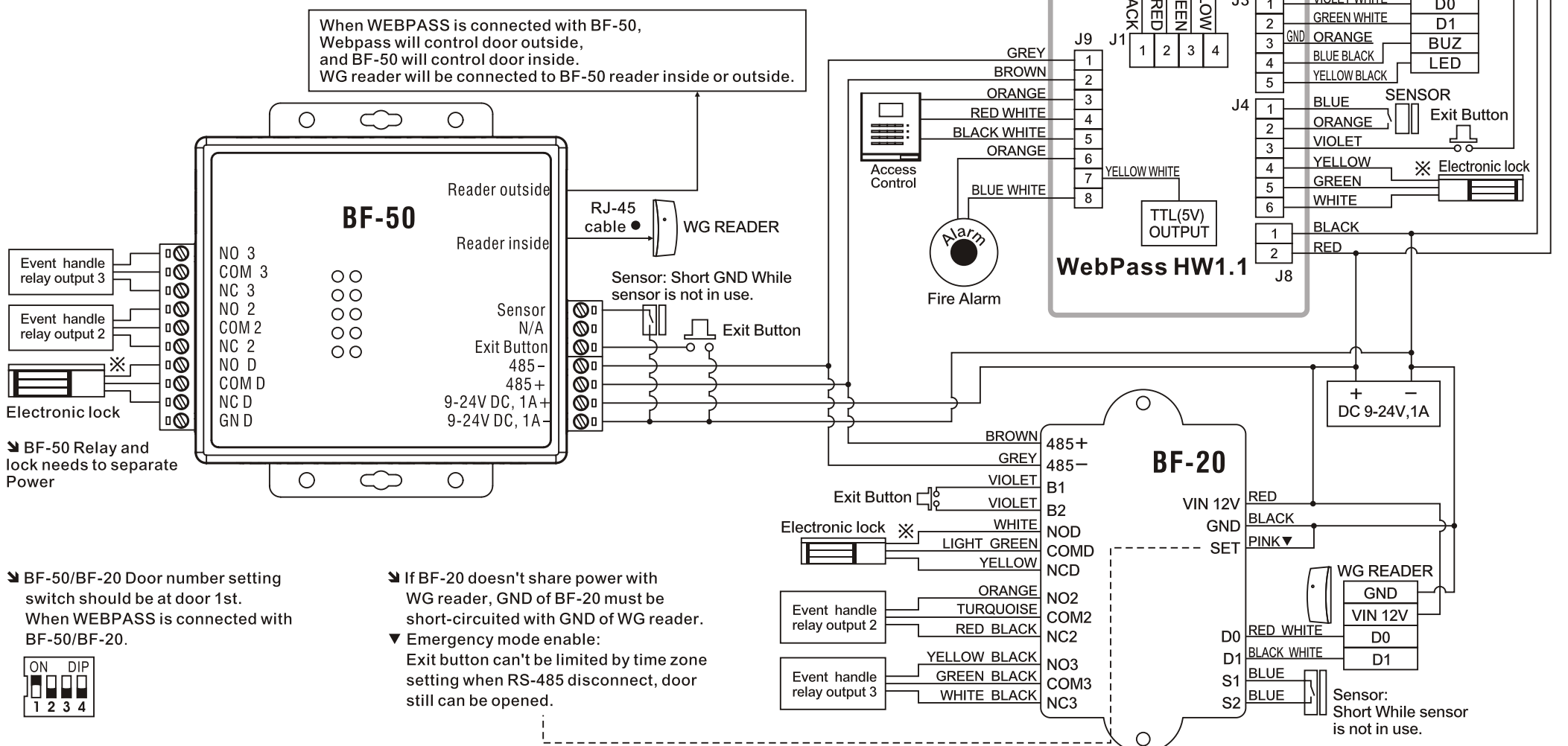
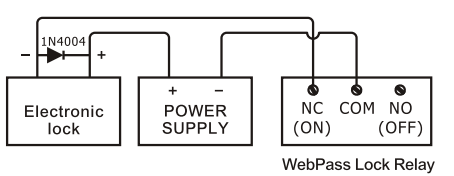
Pin	Color	Description	Notes
1	ORANGE WHITE	D0	
2	ORANGE	D1	
3	GREEN WHITE	Output, Controlled the LED of Reader	
4	BLUE	Output, Controlled the Buzzer of Reader	
5	BLUE WHITE	Reader sensing control (Must short GND)	
6	GREEN	To detect Reader	
7	BROWN WHITE	POWER-	9-24V DC power output, same as BF-50 power input.
8	BROWN	POWER+	

※ Door Relay Connect.

• Power off Lock



• Power on Lock



▼ BF-50 Relay and lock needs to separate Power

▼ BF-50/BF-20 Door number setting switch should be at door 1st. When WEBPASS is connected with BF-50/BF-20.

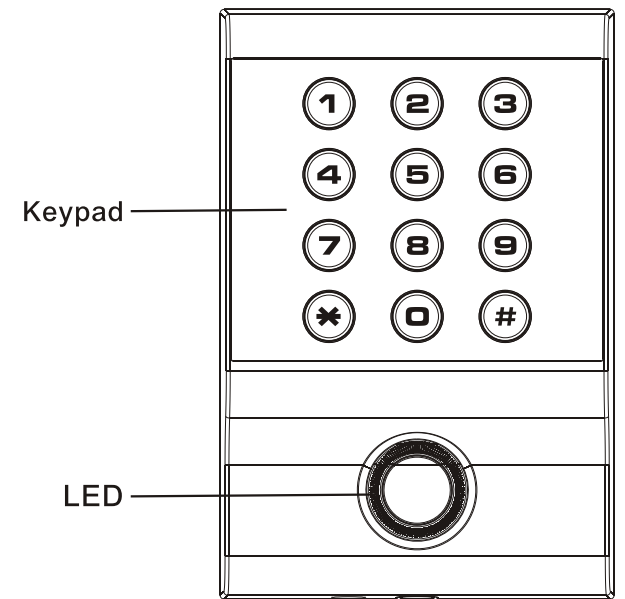


▼ If BF-20 doesn't share power with WG reader, GND of BF-20 must be short-circuited with GND of WG reader.
▼ Emergency mode enable: Exit button can't be limited by time zone setting when RS-485 disconnect, door still can be opened.

D. Function Setting and Operation Guide

LED Display & Buzzer Guide

Command	LED Indicators and Buzzer status
Boot loader	Red & Blue Flash altogether per second
System Ready	2 short beep, Blue Flash per second
System ready for Dummy Reader (Disconnected with SEMAC)	Both LED flash altogether per second
Security Active (To be SEMAC reader)	Red Flash per second
Illegal card/password	1 long beep, Red Shine for 2 seconds
Registered card/password	1 short beep, Blue Shine until door closed,
Force open/ Non Lock	Blue Shine
Force close	Red Shine
IP Conflict	1 short +1 long beep Red Flash per second1 + Keypad flash per second
Door open too long/Intrusion	Beep per second until door closed or Intrusion issue resolved, Red Flash per second
Command mode	1 short beep, Both LED flash altogether per second
Read card under command mode	Both LED flash alternatively per second
Modification failed	1 long beep
Device cover removed	Beep until cover installed, Blue Flash per second
Waiting for next verification information (For example: Multiple verification Time zone, Card + Password)	keypad flashes per second (continus 10seconds)



Command Mode

Configuration Parameters	Action	Explanation
User ID Number	UUUUUU	1~6 digits (standard version: 20,000)
Number of Cards you want to register in Webpass	QQQQQQ	1~6 digits
Password	PPPPPPP	4~8digits
Command	Action	Explanation
Enter to Command mode	*123456#	Default password: 123456 , Buzzer long beeps after entered to command mode. On Command Mode: Blue and Red LEDs flash in the same time. After 10sec will back to Normal mode: Blue LED flashes per second. Command Error: 1 long beep
Door Open Relay configuration (Door close delay time)	02* TTTT #	Time for relay can be: 1-65535secs/ Default :10sec
Door open waiting time(Door open delay time)	03* TTTT #	Time can be setting:1~65535 sec/Default:10sec
System Time setting	04* HHMMSS #	HHMMSS=Hour/Minute/Second(24H)
System Date setting	05* YYMMDDX #	YYMMDDX=Year/Month/Date/Weekday (YY=AD last two digit= 2009=09)
Password modification for entering Command Mode	06* AAAAAA *BBBBB *CCCCC #	AAAAAA : Old password BBBBBB : New password CCCCC : New password, likesBBBBB * password is 4~6 digits
Setting for TID nr. (Terminal ID)	07* TTTT #	TID nr. can be: 1 ~ 65535
Access Control Setting (Relay)	08* T #	T= 0/1/2 → Normal Open/ Normal Close/Back to Normal
Verification mode setting	09* T #	T=1~4 1 : Card, Common Password, or personal Password 2 : Card only 3 : Common Password or Personal Password 4 : Card and Personal password
Common Password setting	10* P P P P P P P #	☆Default is 1234, to cancel it, please go to web to remove it.
Add single user	11* UUUUUU # read card	Read card for registration (LED blue & red lighten)
Add Single card + password user	11* UUUUUU * P P P P P P P # read card	Read card for registration (LED blue & red lighten)
Add many Users: card numbers are continuous	12* UUUUUU * QQQQQQ # read card	Just Put the card with smallest card number to Reader
Add many Users: Card numbers are discontinuous	13* UUUUUU * QQQQQQ # read card	Put the cards one by one to Reader
Disable user account(User status : Cancel)	14* UUUUUU #	
Enable user account (User status: Active)	15* UUUUUU #	
User password modification	16* UUUUUU * P P P P P P P #	4~8 digits (Password)
Modify User Card Number	17* UUUUUU # read card	
Delete single user account	21* UUUUUU #	
Delete many/continuous user accounts	22* UUUUUU * QQQQQQ #	
Delete All user accounts	23*29*#	
Exit from Command Mode	* #	