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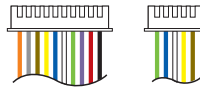
A. Reader



B. User Guide



C. Terminal Cables



D. Tools



Flat Head Cap Philips  
Tapping Screw: 4x19.1

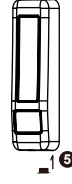
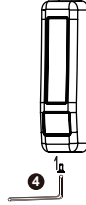
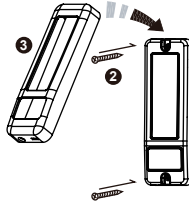
Protection Plug

Security Torx Screw: M3x10



Security Torx Wrenches

### Installation



- According to the actual installation of tamper-resistant top surface cut to the appropriate height of column.
- First set off the metal casing, the controller fixed on the wall.
- Then put the metal casing, the lock screw fixation with secrecy.
- Finally the Protection plug into the hole.  
(Hole in the bottom right corner of the controller)

### Notice

**1. Tubing:** The communication wires and power line should NOT be bound in the same conduit or tubing.

**2. Wire selection:** Use AWG 22-24 Shielded Twist Pair to avoid star wiring.

**3. Power supply:** Don't equip controller and lock with the same power supply. The power for controller may be unstable when the lock is activating, that may make the controller malfunction.

The standard installation: Door relay and lock use the same power supply, and controller use independent power supply.

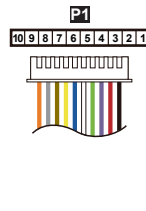
### Installation Diagram

**Cable: P1 (Directly connected at the Access controller)**

Wire Application	Pin	Color	Description
Power	1	Black	DC Power 0V
	2	Red	DC Power 12V
Exit Switch	3	Purple	Negative Trigger Input
Networking Module	4	Green	RS-485(B-)
Lock Relay	5	White	Low output; Max 12V/100mA (Open Collector)
Networking Module	6	Blue	RS-485(A+)
Tamper Switch	7	Yellow	N.O.
	8	Brown	COM
Alarm Relay	9	Gray	Low output; Max 12V/100mA (Open Collector)
Door contact	10	Orange	Negative Trigger Input

**Cable: P2 (for external WG Reader)**

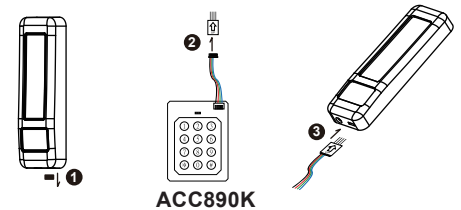
Wire Application	Pin	Color	Description
LED	1	Brown	LED Green Output 5V/20mA, Max
	2	Yellow	LED Red Output 5V/20mA, Max
Beeper	3	White	Beeper Output 5V/100mA, Low
Wiegand	4	Blue	Wiegand DAT:1 Input
	5	Green	Wiegand DAT:0 Input



※ Please remove the Protection plug before installation.

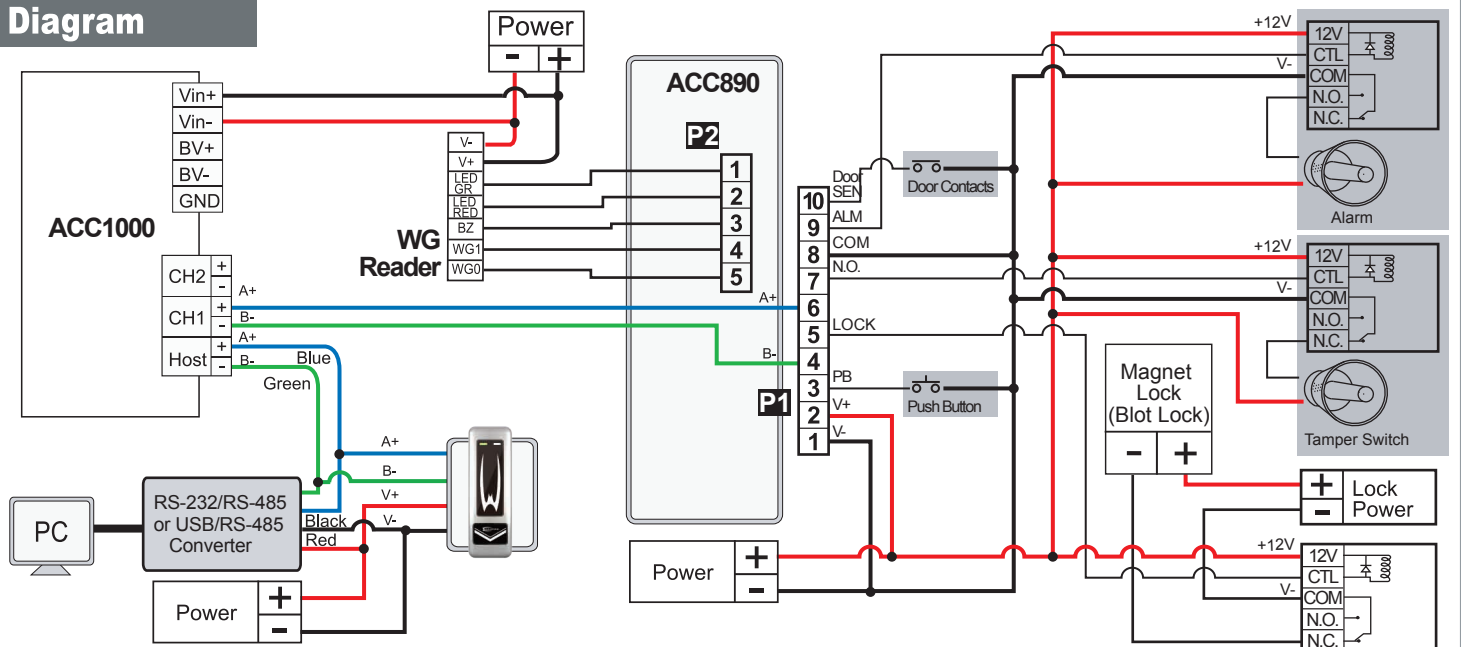
### External ACC890K

※ The ACC890, can optional ACC890K. And installed according to the following pattern on the controller, you can do command operation.



- Remove the Protection plug that in the bottom right.
- (※ Do not lose protection pads, so as not to reduce protection.)
- ACC890K cable will be connected to the pin board.
- ACC890K connected to the controller to the bottom right of the hole.
- Instructions are finished, please order installation back.

### Diagram



## Command List

Entering programming mode	*123456# or *Master Code# (If already changed)	M4/M6/M8
Exiting programming mode	*#	M4/M6/M8
Exiting programming mode and enabling arming status	**#	M4/M6/M8
Node ID setting (Connecting to ACC1000 or total unit ≤ 254)	00*NNN# (Node ID: 001~254)	M4/M8
Node ID setting (Connecting to PC directly without ACC1000 and total unit > 254)	00*NNN*VVV*nnn# NNN = Node ID of ACC960 · VVV = Virtual ACC1000 Node ID · nnn = Door number	M4/M8
Mifare tag / card format (Optional)	01*N# N=0: ISO 14443A / N=1: ISO 14443B / N=2: ISO 15693 / N=3: I Code 1 / N=4: I Code 2 PS: 1.Please select the compliance first. 2.Make sure reader and card use the same compliance.	M4/M6/M8
Door relay time setting	02*TTT# (Door relay time: 000=Normal open) (Door relay time: 001~600=1~600 sec.) (Door relay time: 601~609=0.1~0.9 sec.)	M4/M6/M8
Alarm relay time setting	03*TTT# (Door relay time: 000=Normal open) (Door relay time: 001~600=1~600 sec.)	M4/M6/M8
Control mode setting	04*N# (Mode: 4/6/8)	M4/M6/M8
Arming delay time setting	05*TTT# (Arming delay time: 001~600=1~600 sec.)	M4/M6/M8
Alarm delay time setting	06*TTT# (Alarm delay time: 001~600=1~600 sec.)	M4/M6/M8
Master card setting	07*SSSS*EEEE# (Input a user or a batch of user as the master card: 00000~01023) SSSS=Starting user address · EEEEE=Ending user address	M4/M8
Auto-open zone setting	08*N*HHMMHHMM*111111# N: 2 sets of auto-open zone (0: 1st set; 1: 2nd set) HHMMHHMM=Starting time to ending time (i.e.: 08301200=08:30 to 12:00) 111111: 7 days of week (Sun/Mon/Tue/Wed/Thu/Fri/Sat) (0: disable; 1: enable)	M4/M6/M8
Master code setting	09*PPPPPRRRRRR# PPPPPP=New master code RRRRRR=Repeat the new master code	M4/M6/M8
Suspend or delete tag (* = Suspend) (9 = Delete)	Suspend: 10*SSSS*EEEE# Delete: 10*SSSS9EEEE# SSSS=Starting user address · EEEEE=Ending user address	M4/M6/M8
Recover tag	11*SSSS*EEEE# recover the suspended tag SSSS=Starting user address · EEEEE=Ending user address	M4/M8
Setting up a batch of user to access by card only (M6 only)	11*SSSS*EEEE# SSSS=Starting user address · EEEEE=Ending user address	M6
Setting up the PWD/PIN (Access mode: Card or PIN)	12*UUUUU*PPPP# UUUUU= User address PPPP=4-digit individual PWD	M4/M8
Setting up the PWD/PIN (Access mode: Card and PIN)	13*UUUUU*PPPP# UUUUU= User address PPPP=4-digit individual PWD	M4/M8
Arming output time setting	14*TTT# (Arming output time: 001~250=1~250 sec.)	M4/M6/M8
M4/M8: Duress code setting M6: Public PIN setting (Card or PIN)	15*PPPP# PPPP=4-digit individual PWD P.S. Duress code will be unavailable and become a public PIN at access mode M6 "Card or PIN"	M4/M6/M8
Card number modification	16*UUUUU*SSSSCCCC# UUUUU= User address · SSSSS=5-digit site code CCCCC=5-digit card code	M4/M8
M4/M8: Arming PWD setting M6: Public PIN setting (Card and PIN)	17*PPPP# PPPP=4-digit individual PWD ( default value=1234; disable Arming PWD=0000) P.S. Arming PWD code will be unavailable and become a public PIN at access mode M6 "Card and PIN"	M4/M6/M8
Door close time	18*TTT# (Door close time: 001~600=1~600 sec.; default value: 15 sec.)	M4/M6/M8
Adding tag	19*UUUUU*QQQQQ# UUUUU=User address · QQQQQ=Pieces of card	M4/M8
Factory setting-1(Function default value)	20*DDD# (Please refer to function default value for details)	M4/M6/M8
Lift control setting: multi-floors	21*UUUUU*S*FFFFFFF# UUUUU=User address S: 4 sets of lift control (Input: 0~3) · FFFFFFFF: 8 floors/stop setting (0=Disable, 1=Enable)	M4/M8
Add/Delete tag by RF (M6 only)	22*N# N=0=Delete tag · N=1=Add tag	M6
Relay time of lift controller setting	23*NNN*TTT# NNN=Node ID of lift controller · TTT= relay time: 000~600=1~600 sec.	M4/M8
Factory setting-2 (Function default value)	24*DDD# (Please refer to function default value for details)	M4/M6/M8
Real time clock setting (Stand-Alone)	25*YYMMDDHHmmSS# YYMMDDHHmmSS: Year/Month/Day/Hour/Min./Sec.)	M4/M6/M8
Anti-pass-back (Enable user)	26*SSSS*EEEE*N# SSSSS=Starting user address · EEEEE=Ending user address N=0=Enable; N=1=Disable; N=2=Initial	M4/M8
Lift control setting: single door	27*UUUUU*FF# UUUUU=User Address · FF=Floor number (01~32 floors/stops)	M4/M6/M8
Force open alarm setting	28**NNN# NNN=000=Disable · NNN=128=Enable	M4/M8
Delete all tag	29*29*#	M4/M6/M8
Enable the security trigger signal ( with ACC899)	34*128# To Change the "Arming" become the security trigger signal, when controller is connected with ACC899.	M4/M6/M8

### Function Default Value

#### A · 20\*DDD#

Function	Option		Value	Application
	0	1		
Time Attendance	Yes*	No	001	Networking
Auto Re-lock	Disable*	Enable	002	Networking/Stand-Alone
Auto Open	Disable*	Enable	004	Networking/Stand-Alone
Exit by Push Button	Disable	Enable*	016	Networking/Stand-Alone
Master Reader of Network	Slave*	Master	032	Networking
Access/Exit Reader	Exit*	Access	064	Networking
Anti-pass-back	Disable*	Enable	128	Networking

#### Remarks:

\*: default value

Option 0= none value

Option 1= 1 x each value (i.e. DDD value of Enable "Auto Open" +

"Exit by Push Button" + "Anti-pass-back" =004+016+128=148.

As a result, the command will be [20\*148#].)

#### B · 24\*DDD#

Function	Option		Value	Application
	0	1		
Auto-open door without presenting card at auto open zone	Disable*	Enable	001	Networking / Stand-Alone
Alarm Output/Lift Control	Alarm Output*	Lift Control	002	Networking / Stand-Alone
Stop Alarm by...	None*	Push Button / Door Closed	064	Networking / Stand-Alone
Door bell	Disable*	Enable	128	Networking / Stand-Alone

#### C · 28\*DDD#

Function	Option		Value	Application
	0	1		
Dual Door Open	Disable*	Enable	64	Networking / Stand-Alone
Force Open Alarm Output	Disable*	Enable	128	Networking / Stand-Alone

## Programming

### A · Entering and Exiting Programming Mode

Entering	Exiting
[*123456#] or [*Master Code#] (If already changed)	[*#]

### B · Initial Setup

#### 1.Restoring Factory Settings

Access programming mode [\*123456#] or [\*Master Code#]

(If already changed) → [20\*016#] → [24\*000#] →

[26\*0000\*01023\*2#] → [28\*000#] → [29\*29\*#] → Changing

the Master Code to default value:123456 → [\*#] (done)

#### 2.Changing the Master Code

Access programming mode [\*123456#] or [\*Master Code#]

(If already changed) → [09\*PPPPPPRRRRR#] (Input the

6-digit new master code twice)

#### 3.Changing the Node ID of Reader

Access programming mode [\*123456#] or [\*Master Code#]

(If already changed) → [00\*NNN#] (Node ID: 001~254)

### C · Setting up the control mode (M4/M6/M8)

Access programming mode [\*123456#] or [\*Master Code#] (If already changed) → [04\*N#]

(Input: 4/6/8)

Mode Application	M4	M6	M8
Support	Stand-Alone Networking	Stand-Alone	Stand-Alone Networking
User Capacity	3,000(0~2,999)	65,535(1~65,535)	3,000(0~2,999)
Access Mode	1. Card only 2. Card and PIN (4-digit individual PIN) 3. Card or PIN (if access by PIN only, user should press 9-digit PIN = 5-digit user address + 4-digit individual PIN)	1. Card only 2. Card and PIN (4-digit public PIN = Arming PWD) 3. Card or PIN (4-digit public PIN = Duress code) P.S.: Duress code is unavailable under M6.	1. Card only 2. Card and PIN (4-digit individual PIN) 3. Card or PIN (if access by PIN only, user could just press 4-digit individual PIN)
Event Capacity	1,500	X	1,500
120 Holidays	V	X	V
Duress	V	X	V
Time Zone	11	X	11
Lift Control	32	X	32
Anti-pass-back	V	X	V

### D · Setting up the password

#### 1.Individual PWD (M4/M8)

##### a. Card or PIN

Access programming mode [\*123456#] or [\*Master Code#]

(If already changed) → [12\*UUUUU\*PPPP#] (i.e. User

address: 00001 and PWD: 1234, input 12\*00001\*1234#)

##### b. Card and PIN

Access programming mode [\*123456#] or [\*Master Code#]

(If already changed) → [13\*UUUUU\*PPPP#] (i.e. User address:

00001 and PWD: 1234, input 13\*00001\*1234#)

#### 2.Public PWD (M6)

##### a. Card and PIN

Access programming mode [\*123456#] or [\*Master Code#]

(If already changed) → [17\* PPPP#]

(Input 4-digit PWD, default value: 1234)

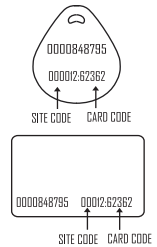
##### b. PIN only

Access programming mode [\*123456#] or [\*Master Code#]

(If already changed) → [15\* PPPP#]

(Input 4-digit PWD)

### Tag Information



### E · Anti-pass-back

Usually, anti-pass-back is commonly applied to parking areas or elsewhere user wants to monitor not only the access but also exit condition.

#### • Enable device

■ Access programming mode → [20\*128#] please refer to "20\*DDD#" function default value for additional function value

#### • Enable card user

■ Access programming mode → [26\*SSSS\*EEEE\*0#]

(i.e. User address from 00001 to 00005 enable the anti-pass-back

function: [26\*00001\*00005\*0#])

### F · Auto Open Zone

Door will remain opening after first person flashes card. ACC960 only supports two sets of auto-open zone by device setting, but auto-open zone can be extended up to 63 sets if connected to ACC1000.

#### • Enable/Disable auto open zone

■ Access programming mode [20\*004#] please refer to "20\*DDD#" function default value for additional function value

#### • Enable/Disable auto open door without presenting card

■ Access programming mode [24\*001#] please refer to "24\*DDD#" function default value for additional function value

#### • Setting up open time

■ Access programming mode → [08\*N\*HHMMHHMM\*111111#]

N: 2 sets of auto-open zone (N=0=1st set; N=1=2nd set)

HHMMHHMM=starting time to ending time (i.e.: 08301200=08:30 to 12:00)

## Adding and Deleting Tag

M4/M8			M6		
Adding Tag (M4/M8)			Deleting Tag (M6)		
Single Tag	A Batch of Tags		Delete Single/A Batch Tag	Delete All Tag	
RF Learn Function	Sequential Tag NO.	Random Tag NO.	Access programming mode	Access programming mode	Access programming mode
<b>Access programming mode</b> *123456# or *Master Code# (If already changed) ↓ <b>19*UUUUU*QQQQQ#</b> UUUUU=5-digit User Address: 00000~02999 QQQQQ: Input 00001 (Only one tag) (i.e. 19*00001*00001) ↓ <b>Close Tag into RF Area</b> Present the tag to the controller. ↓ <b>OK</b> (Memory location number)	<b>Access programming mode</b> *123456# or *Master Code# (If already changed) ↓ <b>19*UUUUU*QQQQQ#</b> UUUUU=5-digit User Address: 00000~02999 QQQQQ: Input 5-digit tag units: Enter the <b>quantity of tags</b> to be added. (i.e.: 10 pcs of sequential tag=00010) ↓ <b>Close Tag into RF Area</b> Present the tag with the <b>lowest number</b> to the controller. ↓ <b>OK</b> (Memory location number)	<b>Access programming mode</b> *123456# or *Master Code# (If already changed) ↓ <b>19*UUUUU*QQQQQ#</b> UUUUU=5-digit User Address: 00000~02999 QQQQQ: Input 00001 ↓ <b>Close Tag into RF Area</b> Present the tag to the controller. ↓ <b>OK</b> (Memory location number) The first tag has now been added, present the rest of the tags one after the other to add them to the system as well.	<b>Access programming mode</b> *123456# or *Master Code# (If already changed) ↓ <b>10*SSSSS9EEEE#</b> 9=Delete SSSSS=starting user address EEEEE=ending user address (i.e. Delete User Address 00003~10*00003900003) ↓ <b>Done</b>	<b>Access programming mode</b> *123456# or *Master Code# (If already changed) ↓ <b>10*SSSSS9EEEE#</b> 9=Delete SSSSS=starting user address EEEEE=ending user address (i.e. Delete User Address: 00004~00010=10*00004900010) ↓ <b>Done</b>	<b>Access programming mode</b> *123456# or *Master Code# (If already changed) ↓ <b>29*29*#</b> ↓ <b>Done</b>

### G · Lift control

Connect to lift controller to control which floor(s) the user will be allowed to access.

#### Enable Device

- Access programming mode **24\*002#** please refer to "24\*DDD#" function default value for detail.

#### Single floor

- Access programming mode → **27\*UUUUU\*FF#**  
 UUUUU=User Address  
 FF=Floor number (01~32 floors/stops)

#### Multi floors

- Access programming mode → **21\*UUUUU\*S\*FFFFFFF#**  
 UUUUU=User address  
 S: 4 sets of lift control (Input: 0~3)  
 FFFFFFFF: 8 floors/stops setting (F=0=Disable, F=1=Enable)  
 Please refer to below floor chart

Set	Floor/Stop							
	F	F	F	F	F	F	F	F
0	8	7	6	5	4	3	2	1
1	16	15	14	13	12	11	10	9
2	24	23	22	21	20	19	18	17
3	32	31	30	29	28	27	26	25

### H · Setting up the alarm

#### 1. Conditions:

- Arming enabled
- Alarm system connected

#### Q: How to enable/disable the arming status?

#### A: By Keypad

Enable: Access programming mode → press **\* \* #**  
 Disable: Access programming mode → press **\* #**

#### By flashing card + Arming PWD

Enable/Disable: Flash card + press 4-digit arming PWD **PPPP#** (default: 1234)

#### 3. Flow chart:

**Normal Open:**

```

      graph LR
      subgraph Arming_setting [Arming setting]
      A[Enable Arming] --> B[Arming Delay TM]
      end
      B --> C[1 Door Relay TM]
      C --> D[2 Door Close TM]
      D --> E[3 Alarm Delay TM]
      E --> F[4 Alarm Relay TM]
      
```

**Abnormal Open:**

```

      graph LR
      subgraph Arming_setting [Arming setting]
      A[Enable Arming] --> B[Arming Delay TM]
      end
      B --> C[1 Alarm Delay TM]
      C --> D[2 Alarm Relay TM]
      
```

**2. Application:**

- Door open too long after normal opening
- Door sensor error
- Forced open (access by force open or illegal procedure)

Function	Command
Door Relay TM ①	02
Door Close TM ②	18
Alarm Relay TM ④ ②	03
Alarm Delay TM ⑤ ①	06
Arming Delay TM	05
Force Open	28