

## INSTALLATION



**CP3**

**2 Lanes Parking Access**



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## General Description

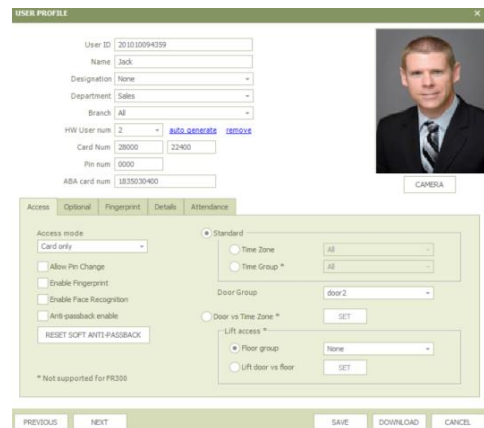
Management can define access permission who is allowed to come in at which barrier lane and at what time. Support **local anti-pass back** between two readers. Support up to **3000 cards** and **11 time zones**. All user profile is kept in the PC software for ease of maintenance. Each user can be assigned an expiry date (for paid season parking or easy for condominium management team to collect monthly maintenance fee). Once initial setting is completed, CP3 system is fully operational without PC. PC can be turn on only when operator want to add/edit/delete user profile or view event log.

During entry or exit, flash the access card in front of reader. Upon identity verification, the controller will trigger the barrier gate to open. Reader will reject expired and invalid card number.

ME-ACS software is user friendly and offer clean GUI instead of crowded the screen with unnecessary functions. Operator or security guard with minimum IT knowledge able to operate the software easily.



Clean interface and easier to review event log

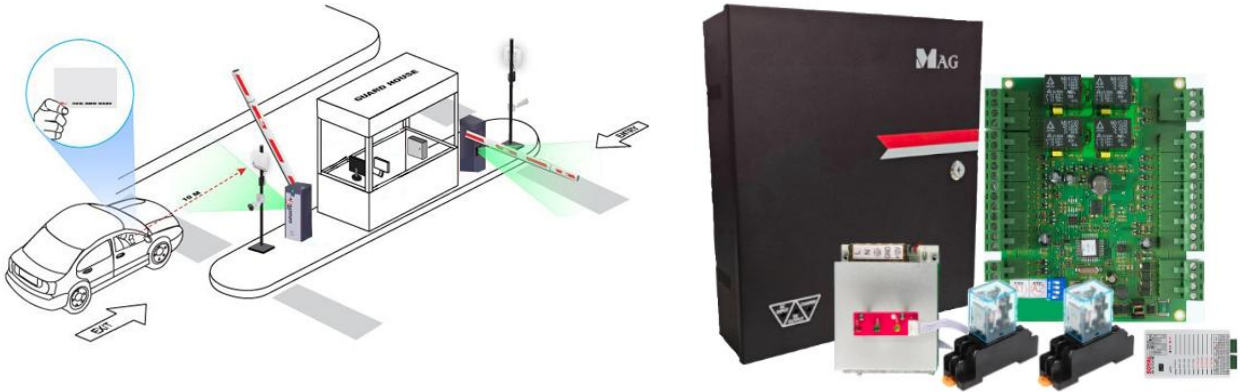


User profile

Ideal parking access solution for small to medium size condominium, residential gated community building and factory.

## Ordering Information

Each CP3 system consists of 1 x Main system (CP3M) and 2 x Xclone long range reader unit (CP3R4). Controller of CP3M that installed inside guard house is connected to PC for user profile and access control management via MagEtegra ME-ACS software.



## Main System Unit

Model: CP3M

Qty	Equipment
1 pcs	MAC302 dual-door controller
1 pcs	MAG Metal box (build-in power supply) with cam-lock
2 set	MAG <a href="#">barrier gate</a> with <a href="#">loop detector</a>
1 pcs	<a href="#">AR321CM</a> RS485 to USB converter (Upgrade to <a href="#">AR727CM</a> for direct TCP/IP network)
2 pcs	12V DC Relay with base

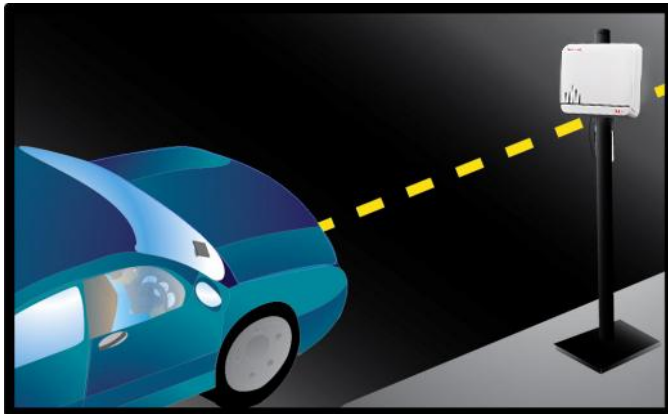
Recommended Surge Protector:

Qty	Equipment
3 pcs	C-240AC to protect AC230 power at main MCB and 2 barrier gate
1 pcs	TP 4/12 to protect WG1 and WG2 at controller
2 pcs	SPE-D12V for UP, COM, DOWN and STOP input signal at both barrier gate board
2 pcs (optional)	TP4/12 to protect long distance wiring from controller to PC.

## Long Range Reader Unit (CP3R4)

AR300U Xclone is an ultra-high frequency (UHF) long-range reader that reads up to 10 meters (free air reading) to open the barrier gate ahead of time for smoother traffic. Final reading range depending on the type of solar film installed on the car, interference at the site and proper card reading angle.

AR300U Xclone has been approved by SIRIM to comply 919 Mhz to 923 Mhz frequency as required by Malaysia regulation. It is not affected by Malaysia's TnG RFID sticker.



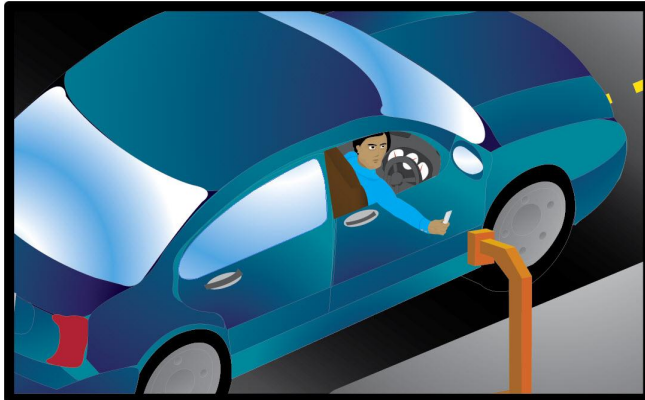
Qty	Equipment
2 pcs	<a href="#">AR300U Xclone</a> reader
2 pcs	<a href="#">Metal pole</a>
2 pcs	Small PVC box for surge protector and wiring termination (not included and to be purchased separately)
1 set	1 x <a href="#">PSU1250</a> power supply for every 2 x long range reader unit
Any	Support following cards: <a href="#">CDUS133L</a> - UHF card <a href="#">CDUE133L</a> - Hybrid UHF and EM <a href="#">CDUM133L</a> - Hybrid UHF and Mifare <a href="#">CDUT133L</a> - UHF sticker

### Recommended Surge Protector:

Qty	Equipment
1 pcs	PD-12FG to protect RS485 data and 12V at AR300U Xclone reader
1 pcs	PSP12 to protect <a href="#">PSU1250</a> power supply at guard house

## Medium Range Reader Unit (CP3R2)

Best value mid-range reader (70 cm-120cm). Reading range depends on the solar film used. User no needs wind down the window; just flash the card from the comfort inside the car. It is more convenient and eliminates the problem of the hand getting wet during rain.



Qty	Equipment
2 pcs	<a href="#">AR200U</a> reader with 19.2V DC power adapter
2 pcs	<a href="#">Gooseneck</a>
2 pcs	Weatherproof acrylic housing and bracket
Any	Supports <a href="#">CDS18L</a> long-range card

### Recommended Surge Protector:

Qty	Equipment
4 pcs	PSP24 to protect 19.2V DC power input at AR200U and power adapter in guardhouse

## Standard Range Reader Unit (CP3R1)

Affordable short-range reader (8 cm). The user winds down the car window to flash the card. This allows the guard to verify the person inside the car for any suspicious intention.

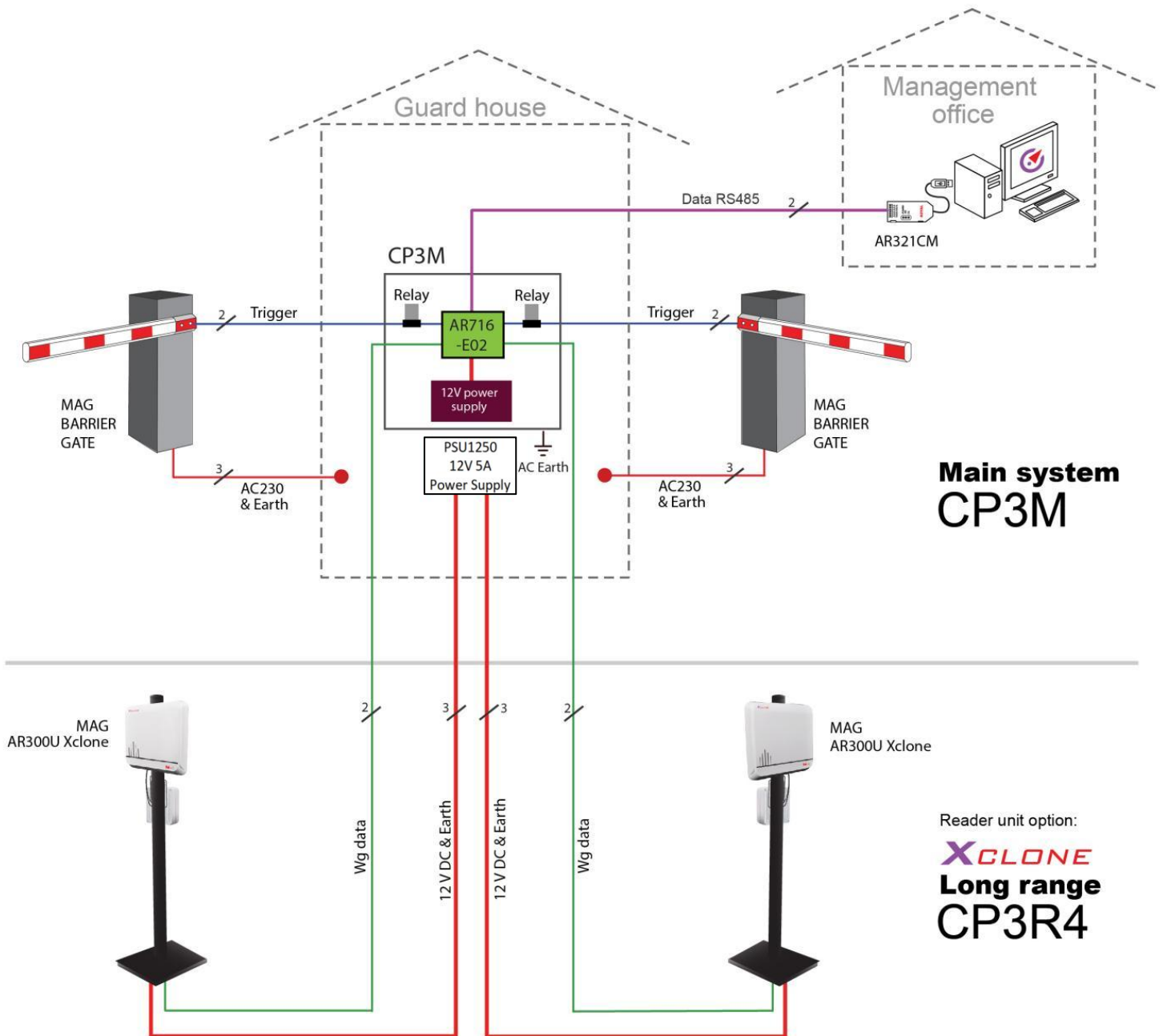


Qty	Equipment
2 pcs	<a href="#">AR721K</a> reader
2 pcs	<a href="#">Gooseneck</a>
Any	Support <a href="#">CDS18</a> proximity cards

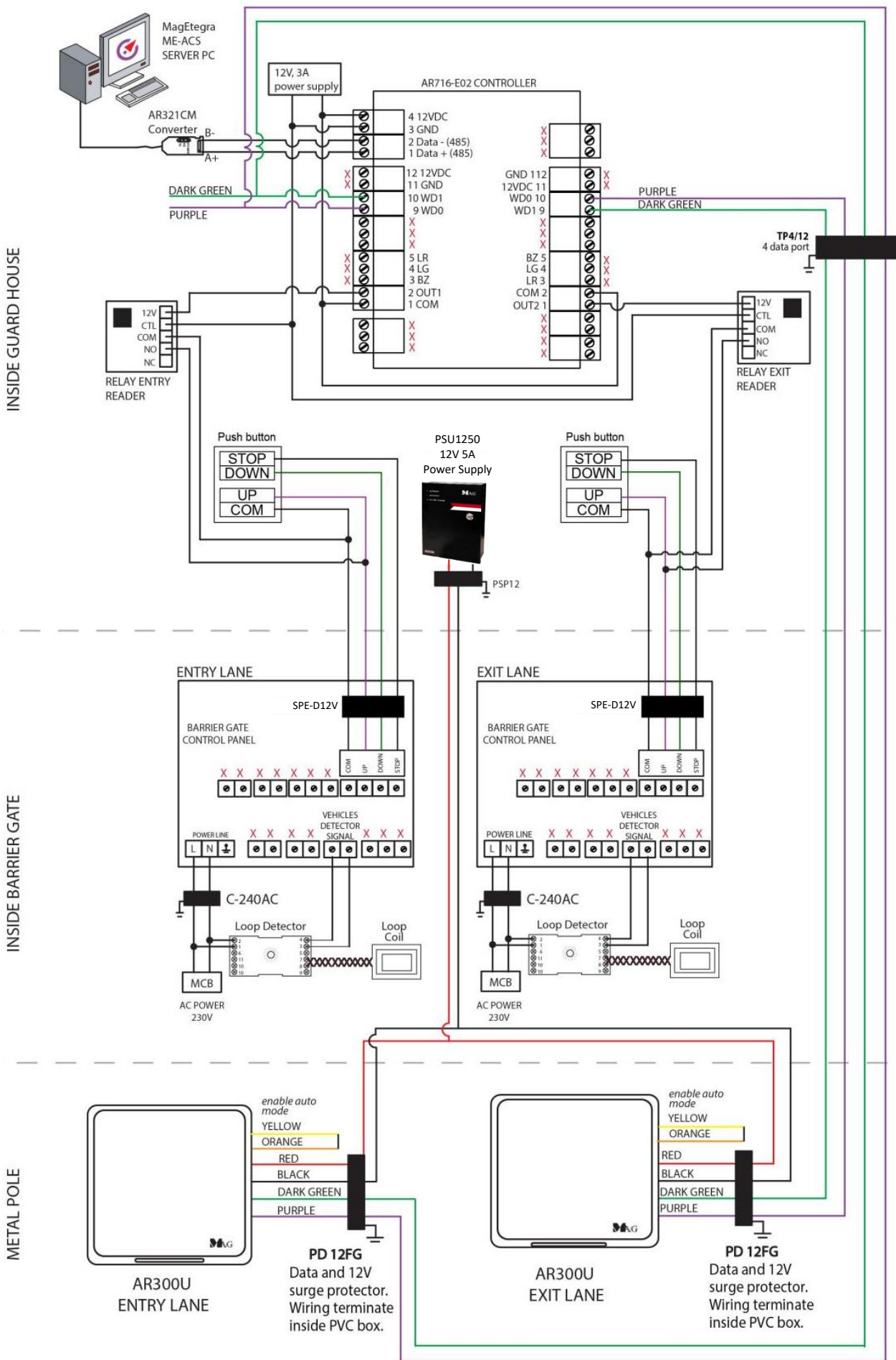
Recommended Surge Protector:

Qty	Equipment
2 pcs	PD-12FG to protect RS485 data and 12V at the reader

# Installation Diagram



# Wiring Diagram



# Surge Protection

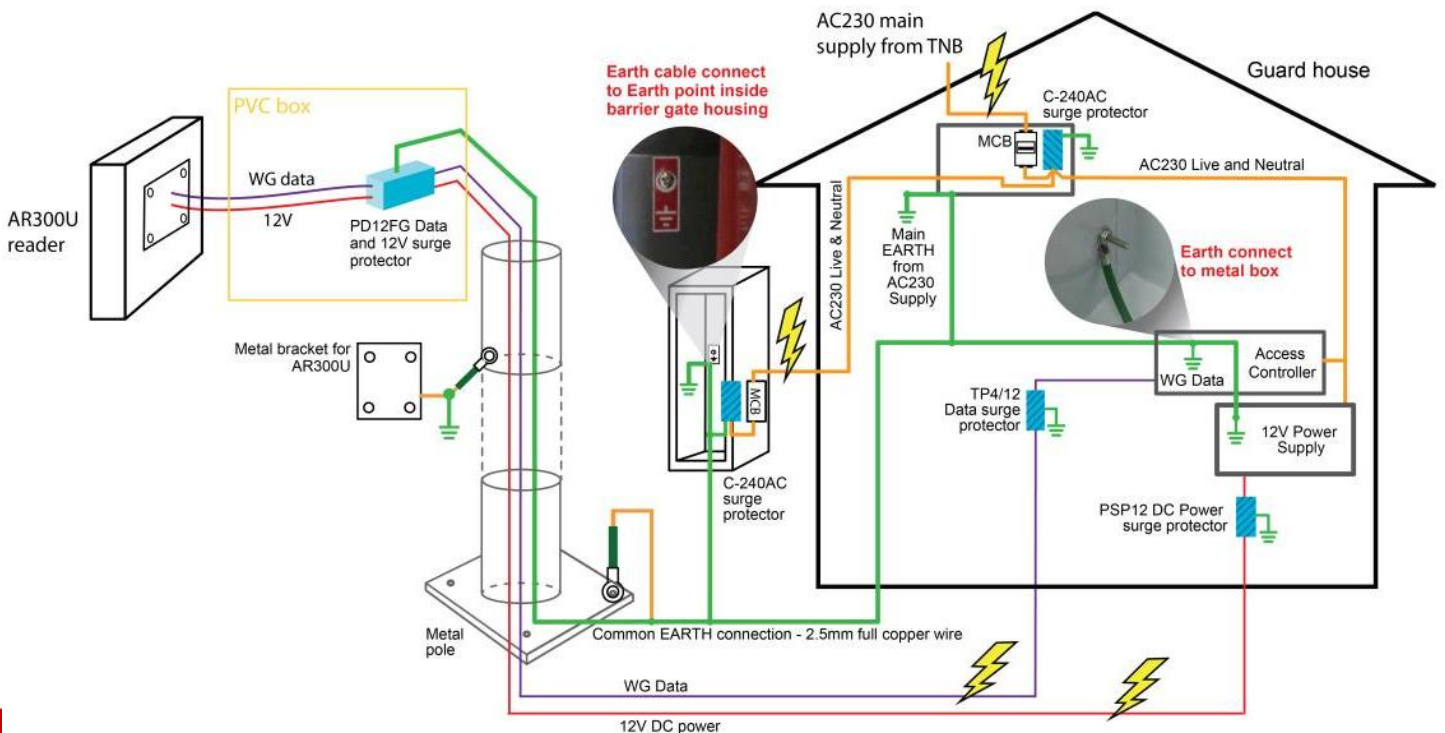
All reader, barrier gate and CCTV installed outdoor is easily damaged by lightning surge therefore it is very important to install surge protection. The problem is more severe for site at hill area. The higher the site, the higher the risk of exposed to lightning surge. With proper EARTH connection, both LPS & SPE's SPD offer full protection.

## Proper Earthing Connection:



- [C-240AC](#) protect AC power in barrier gate.
- [PD12FG](#) protect data and 12V for long range reader.
- [TP4/12](#) to protect 2 x data port.
- [PSP12](#) protect 12V DC.
- [SPE-D12V](#) protect for data and 12V DC.

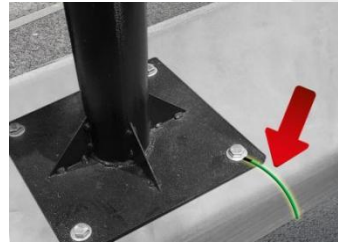
1. All metal body of metal pole, barrier gate, access controller **MUST** be connected to AC EARTH at guard house.
2. **Must install surge protector** with proper EARTH connection to guard house. (Warranty does not cover damages due to lightning surge.)
3. EARTH wire must use at least 2.5mm full copper wire
4. Use cable lug to connect the metal bracket to metal pole.
5. Please remove the paint on metal pole and bracket at connection point to ensure both metal body is connected electrically.
6. Must spray with same colour paint to prevent rust on connection surface.



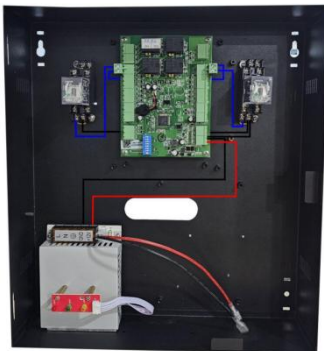
# INSTALLATION GUIDE



AR300U



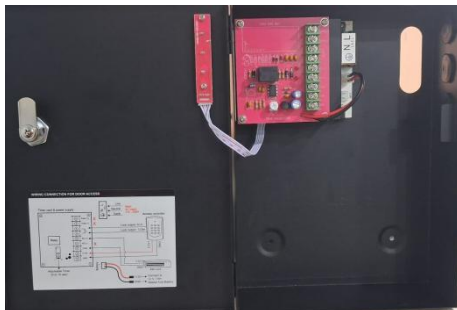
Metal pole



MAG Metal Box



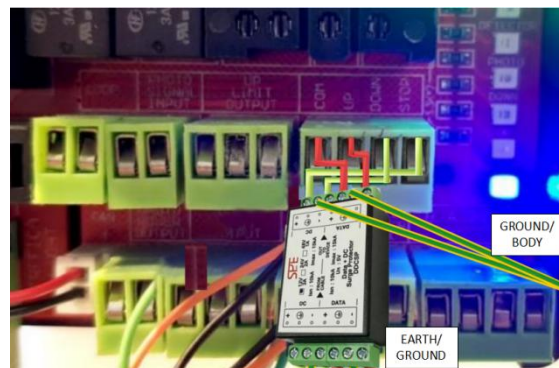
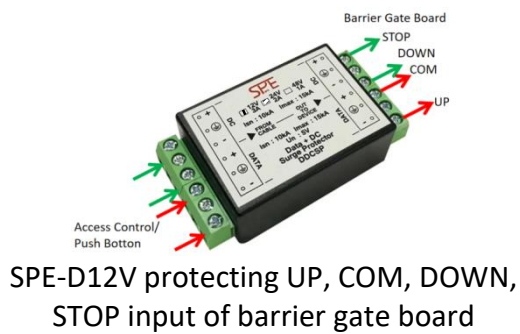
Barrier gate



PSU1250 power supply



Surge protector



## MAC302 (Dual-Door Interface) Setup

### Connect AR721K to the controller

Operator must connect AR721K reader to MAC302 to setup the controller. MAC302 cannot be set through ME-ACS software. Following are the setting that need to be done on MAC302 for parking access application.



## AR721K Reader Interface Setup

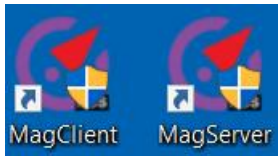
### Enter Programming Mode (\*123456#)

Operator must enter into programming mode in order to perform setting on AR721K. Multiple setting can be done while in programming mode. Once finish all the setting, press \*# to exit the programming mode. You need to program 1 side as Entry while the other side as Exit.

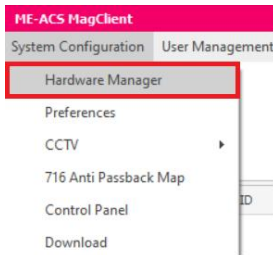
Entry Reader (Port 1)	<b>1. Set Lock Release Time</b>  02*001# (set 1 sec relay time)	<b>2. Set anti-passback (entry)</b>  20*208#
Exit Reader (Port 2)	<b>1. Set Lock Release Time</b>  02*001# (set 1 sec relay time)	<b>2. Set anti-passback (exit)</b>  20*144#

# MagEtegra ME-ACS Software Setup

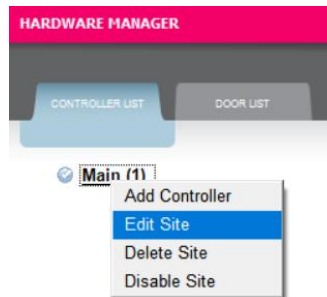
After complete the hardware setup, now we shall connect hardware to ME-ACS software. ME-ACS has 2 applications namely MagServer and MagClient.



1. Run MagClient --> System Configuration --> Hardware Manager



2. Right click on Main --> Click Edit Site

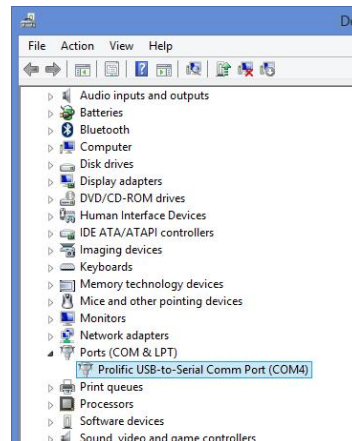


3. Select which COM you use for USB Converter AR321CM. After choose desired COM port number, press SAVE.

Windows automatically assign COM port number to AR321CM. Following is how you check the COM port number assigned.

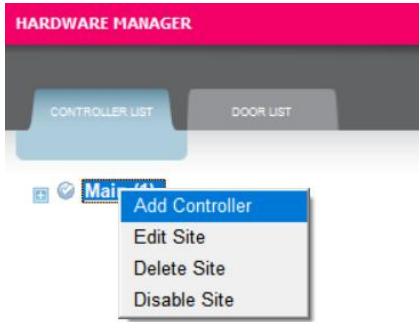
You need to check in Windows Device manager setting in order to get the correct COM port number assigned to AR321CM.

Control Panel --> Device Manager --> Expand Ports (COM & LPT) --> Prolific USB...is USB converter.

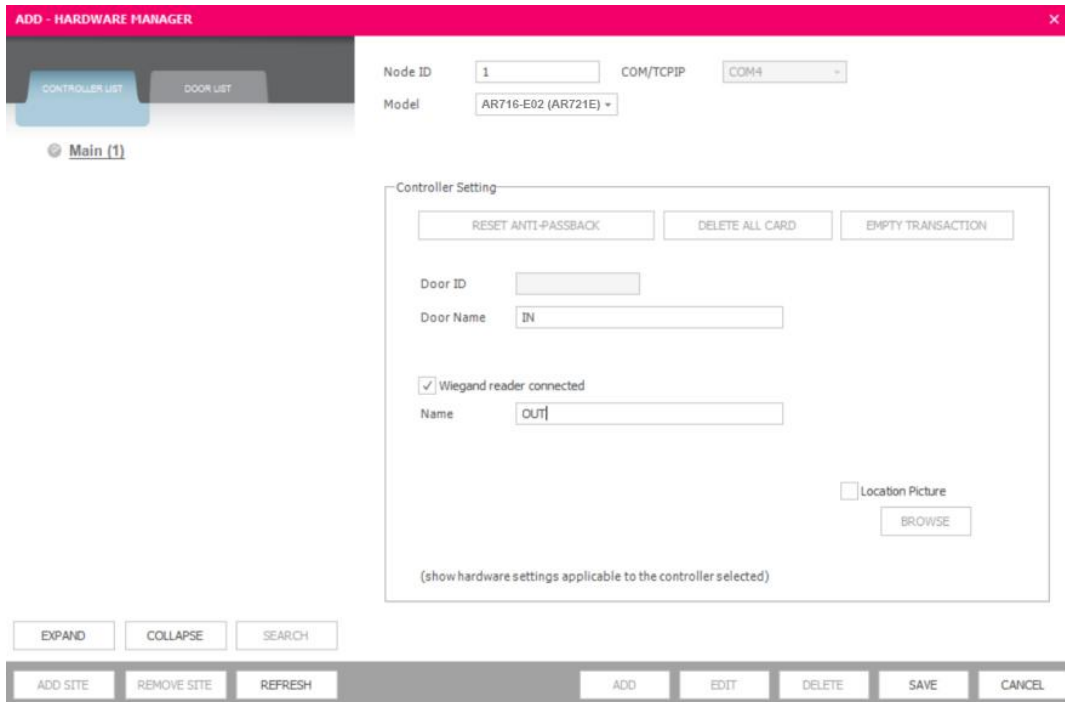


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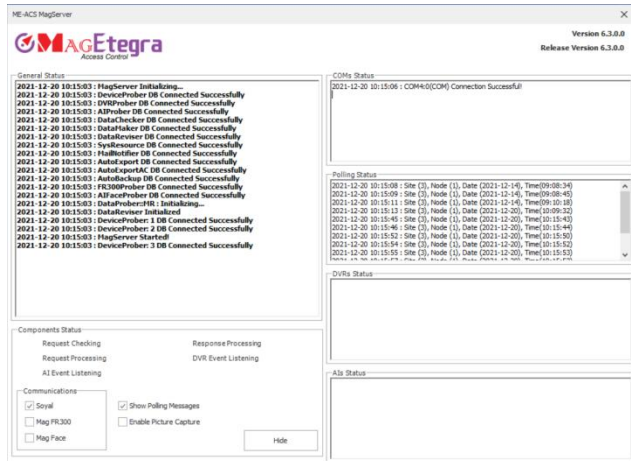
4. Click on Main to highlight it than click ADD to add controller.



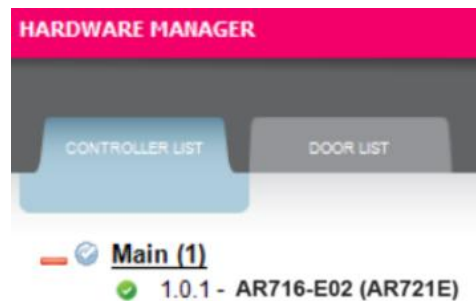
5. Key in the Reader Node ID (Default is 1) --> Select Reader Model --> Key in Door Name ( If not using Wiegand Reader, no need check it ) --> Click Save to save Setting.



6. Run MagServer and check if COM is initialized successfully --> Click Refresh in MagClient hardware manager to check MAC302 (AR721E) whether it is connected successfully.



MagClient will indicate “green” hardware status when MagServer successfully connected to MAC302 (AR721E)



**\*Product performances is based on testing in a controlled environment. Your result may vary due to several external and environment factors.**

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