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INSTALLATION

CP4

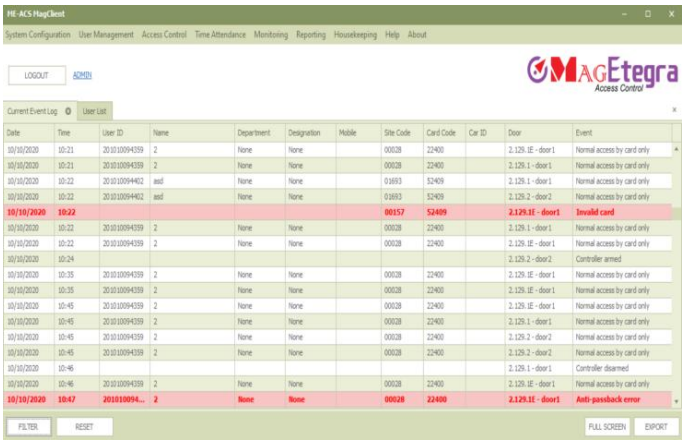
16 Lanes Performance Parking Card Access

Contents

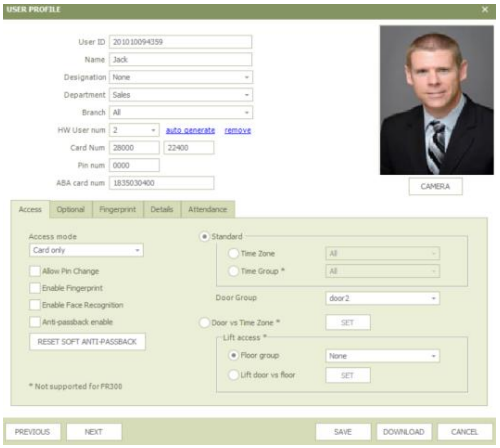
General Description

Management can define more extensive access permission who is allowed to come in at which barrier lane and at what time. Support **global anti pass back** function across all reader units. Support scheduled auto reset of **anti-pass back**. Support up to **16,000 cards**, **120 holidays** and **63 time zones**. Each user can be assigned an **expiry date** (**for paid season** parking or easy for condominium management team collect monthly maintenance fee). Support optional **"Car park FULL" or "Car park EMPTY" indicator**. System can generate alarm alert if reader is damaged or being removed. All user profile is kept in the PC software for ease of maintenance. During entry or exit, flash the access card in front of the reader. Upon identity verification, the controller will trigger the barrier gate to open. Reader rejects **expired or invalid user**.

MagEtegra ME-ACS software offer clean GUI instead of crowded the screen with unnecessary functions. Security guard or operator with minimum IT knowledge will be able to operate the software easily. ME-ACS allow user friendly interface to add/ edit/ delete users. ME-ACS offer extensive reporting to help tracks for evidence in the event of crime. ME-ACS also offer CCTV picture capture function that takes a snapshot for every valid read as visual evidence for future audit.



Clean interface and easier to review event log



User profile

Ideal parking access solution for big commercial building, high-end condominium, enterprise factory where it requires total integration with complete door access and total building security system.

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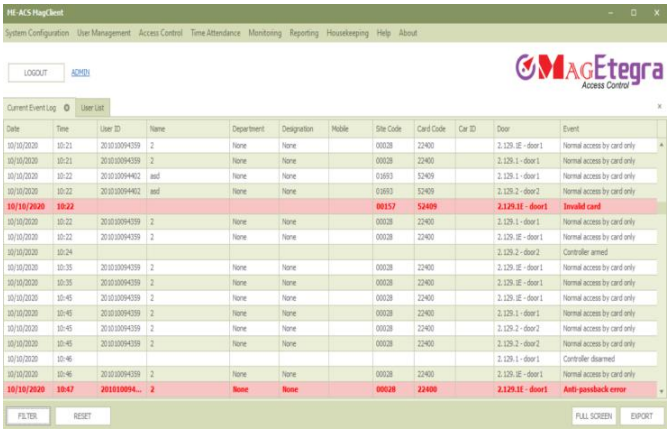

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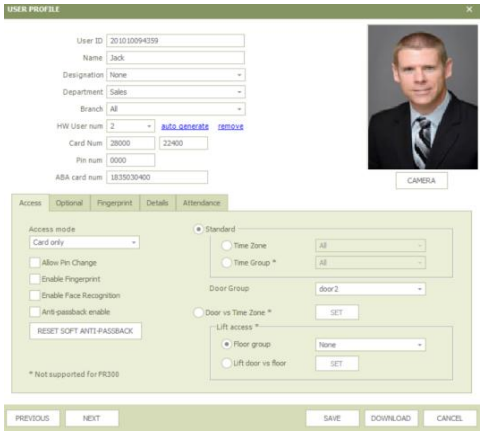
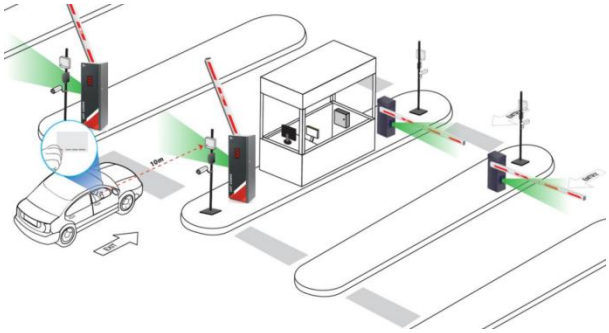


User profile

Ideal parking access solution for big commercial building, high-end condominium, enterprise factory where it requires total integration with complete door access and total building security system.

Ordering Information

Each CP4 system consists of 1 x Main system (CP4M) and multiple Reader units (CP4R1/R2/R4). Controller of CP4M is installed inside guardhouse and is connected to PC for user profile and access control management via software. Optional upgrade for CCTV integration function is available. CP4 system support up to 16 x lanes.



Main System Unit

Model: CP4M

Qty	Equipment
1 pcs	MAC316 multi-door controller
1 pcs	MAG Metal box (build-in power supply) with cam-lock

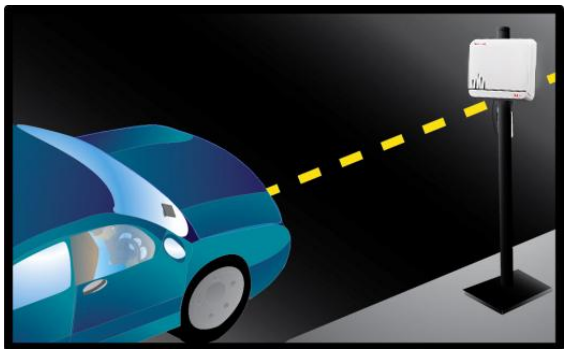
Recommended Surge Protector:

Qty	Equipment
1 pcs	C-240AC to protect AC230 power at main MCB
1 pcs	TP 4/12 to protect RS485 ch1 and ch2 at controller
1 pcs	PSP12 to protect 12V output at power supply

Long Range Reader Unit (CP4R4)

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 919Mhzto 923Mhz frequency as required by Malaysia regulation. It is not affected by Malaysia's TnG RFID sticker.



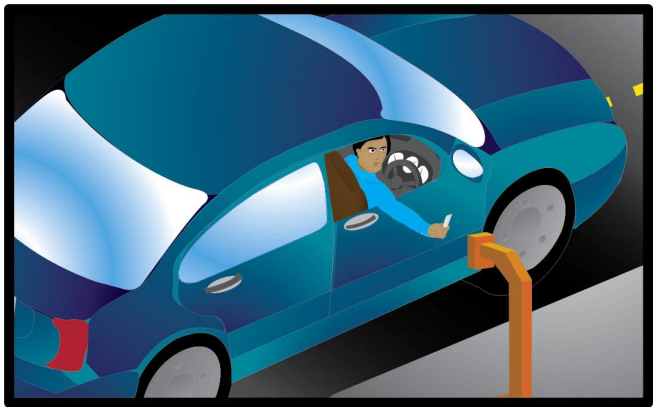
Qty	Equipment
1 pcs	AR300U Xclone reader
1 pcs	AR721H reader
1 pcs	Metal pole
1 pcs	Small PVC box for surge protector and wiring termination (not included and to be purchased separately).
1 set	1 x PSU1250 for every 2 x long range reader unit
1 set	MAG barrier gate with loop detector
Any	Support following cards: CDUS133L - UHF card CDUE133L - Hybrid UHF and EM CDUM133L - Hybrid UHF and Mifare CDUT133L - UHF sticker

Recommended Surge Protector

Qty	Equipment
1 pcs	C-240AC to protect AC230 power input in barrier gate
1 pcs	PD-12FG to protect RS485 data and 12V power supply
1 pcs	SPE-D12V for UP, COM, DOWN and STOP input signal at each barrier gate board

Medium Range Reader Unit (CP4R2)

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.



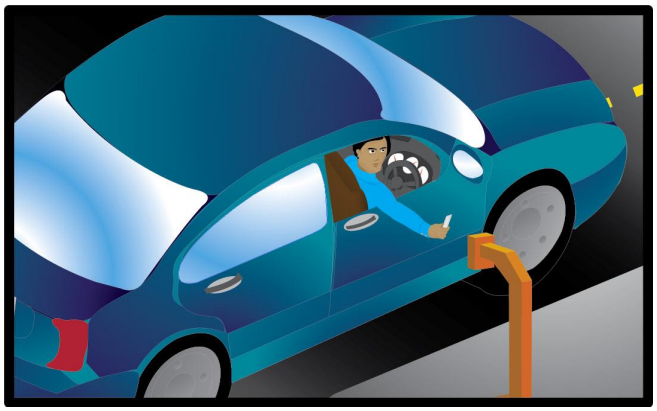
Qty	Equipment
1 pcs	AR200U reader with 19.2V DC power adapter.
1 pcs	AR721H reader
1 pcs	Gooseneck
1 pcs	Weatherproof acrylic housing and bracket.
1 set	MAG barrier gate with loop detector
Any	Supports CDS18L long-range card

Recommended Surge Protector

Qty	Equipment
1 pcs	C-240AC to protect AC230 power input in barrier gate
1 pcs	PSP24 to protect 19.2V DC power input at AR200U
1 pcs	PD-12FG to protect RS485 data and 12V of AR721H reader
1 pcs	SPE-D12V for UP, COM, DOWN and STOP input signal at each barrier gate board

Standard Range Reader Unit (CP4R1)

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
1 pcs	AR721H reader
1 pcs	Gooseneck
1 set	MAG barrier gate with loop detector
Any	Support CDS18 proximity cards

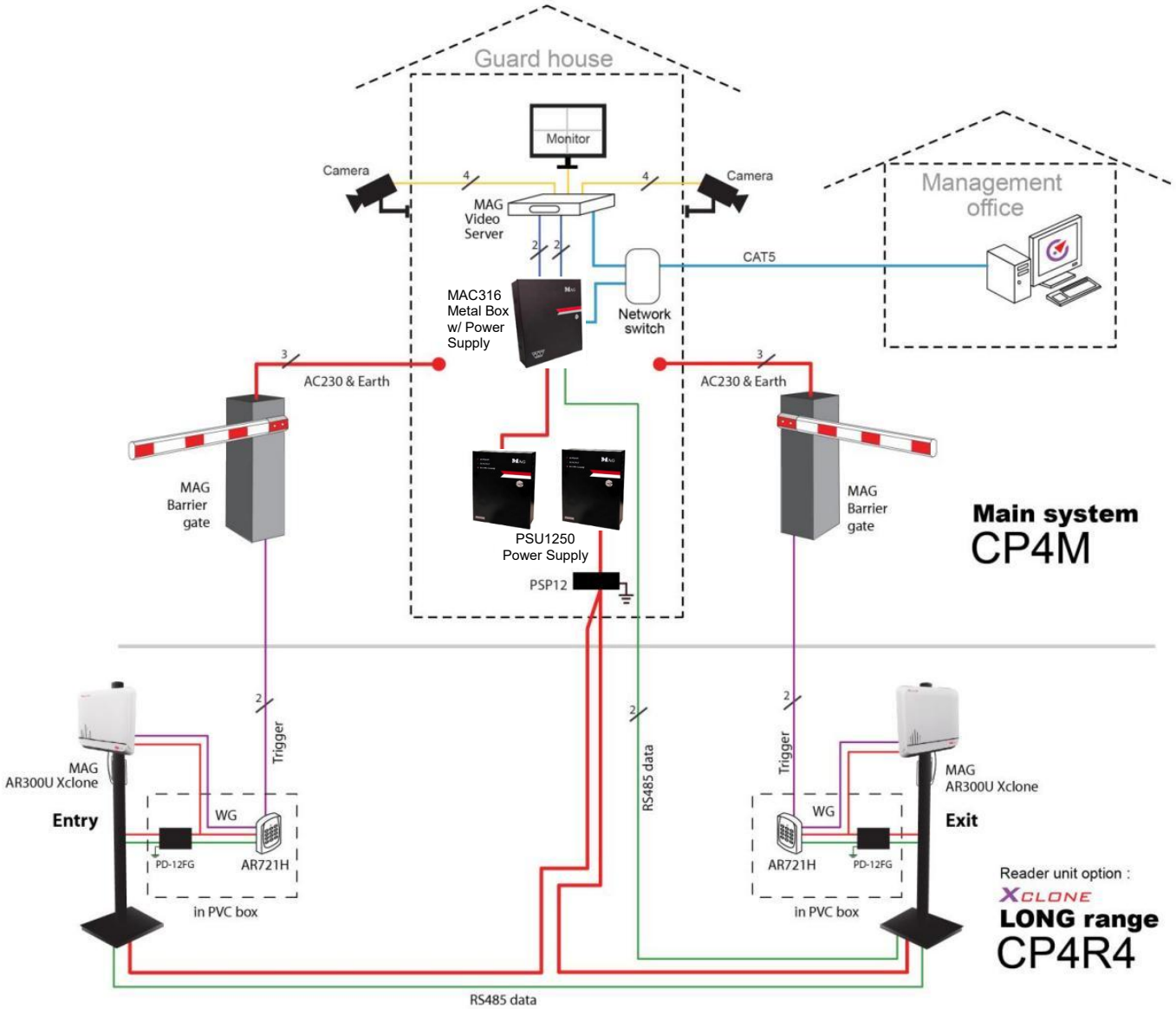
Recommended Surge Protector

Qty	Equipment
1 pcs	C-240AC to protect AC230 power input in barrier gate
1 pcs	PD-12FG to protect RS485 data and 12V at the reader
1 pcs	SPE-D12V for UP, COM, DOWN and STOP input signal at each barrier gate board

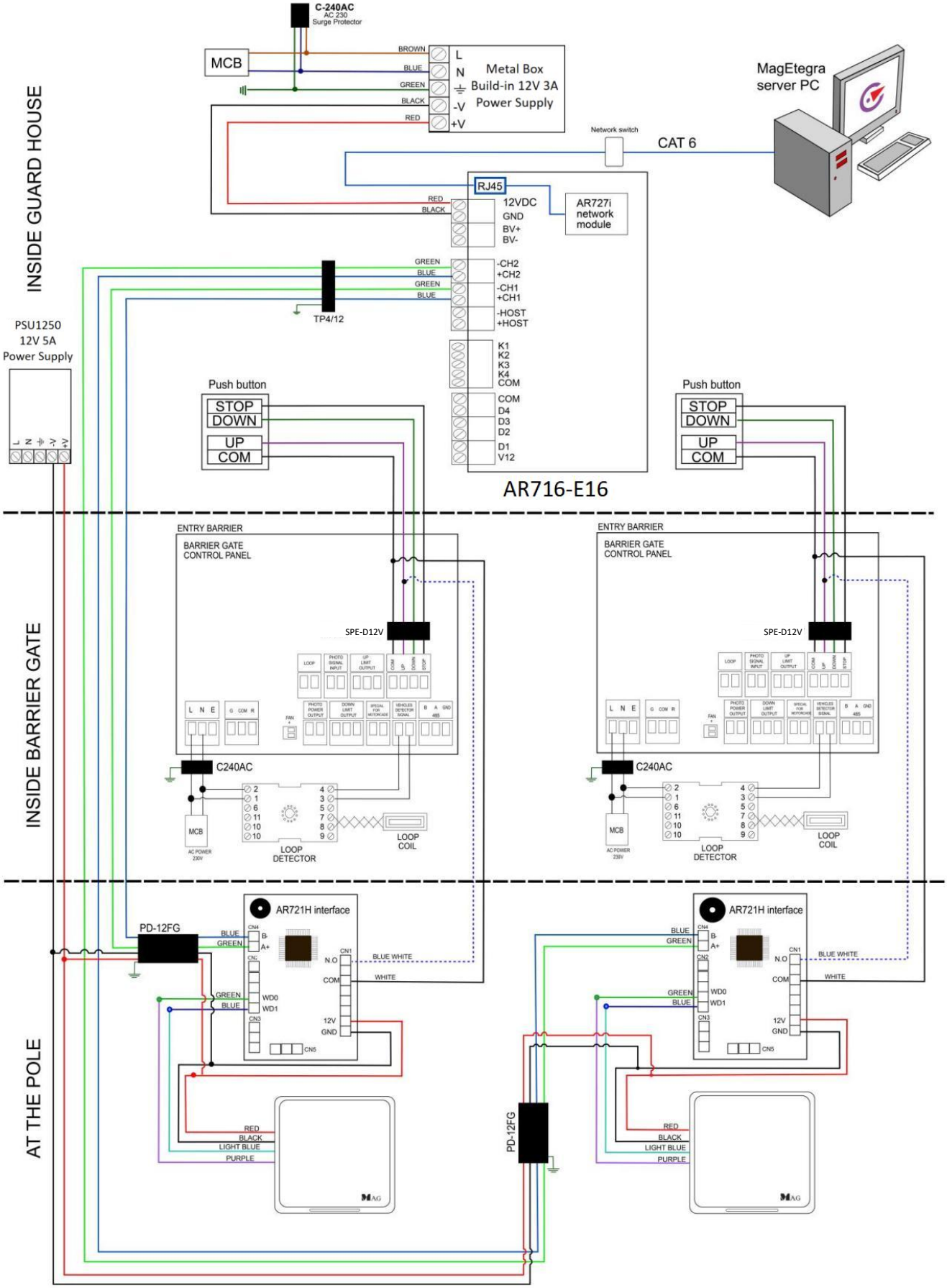
CCTV Integration (Optional)

Qty	Equipment
1 nos	MagEtegra ME-ACS Pro Basic software to support up to 8 cameras.
1 nos	MAG 16 ch video server with alarm input

Installation Diagram



Wiring Diagram



Surge Protection

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.

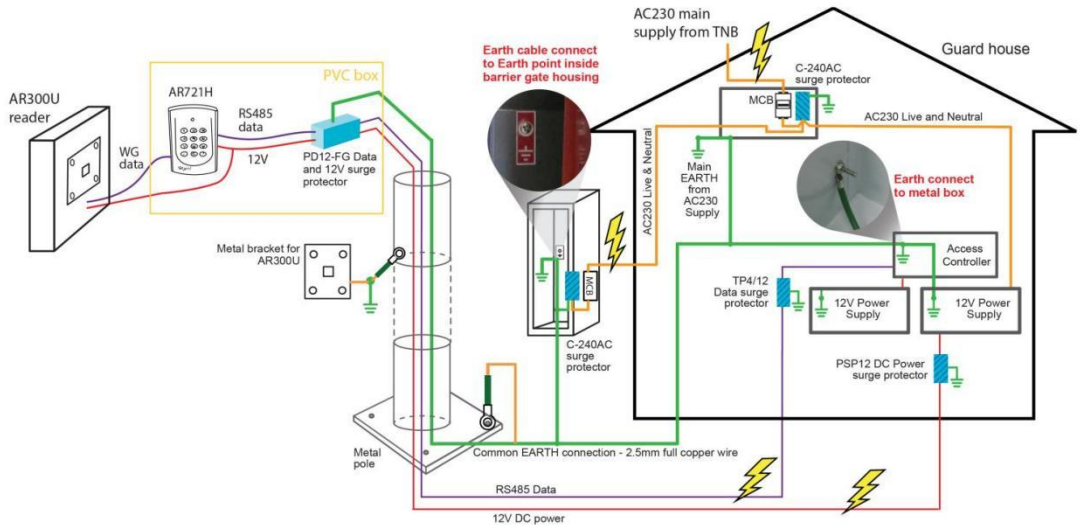
PSP12 protect 12V DC.

SPE-D12V protect for data and 12V DC.

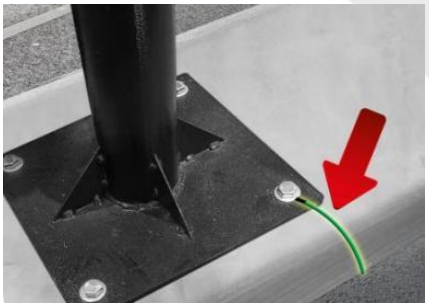
All reader, barrier gate and CCTV installed outdoor is easily damaged by lightning surge therefore it is very important to install surge protection. The problem is more severe for site at hill area. The higher the site, the higher the risk of exposed to lightning surge. With proper EARTH connection,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

Proper Earthing Connection:

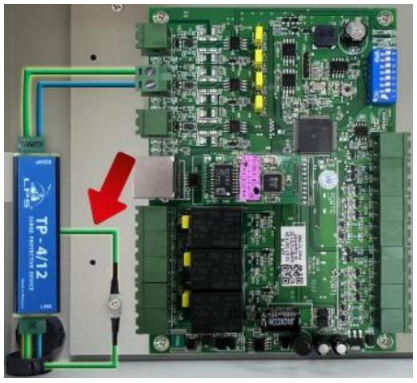
1. All metal body of metal pole, barrier gate, access controller MUST be connected to AC EARTH at guard house.
2. Must install surge protector with proper EARTH connection to guard house.
3. EARTH wire must use at least 2.5mm full copper wire
4. Use cable lug to connect the metal bracket to metal pole.
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.



AR300U

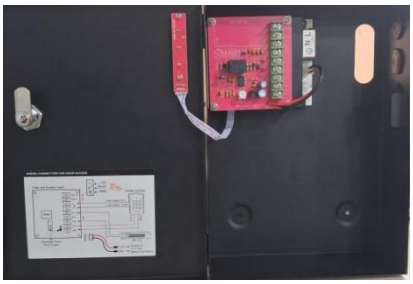


Metal pole

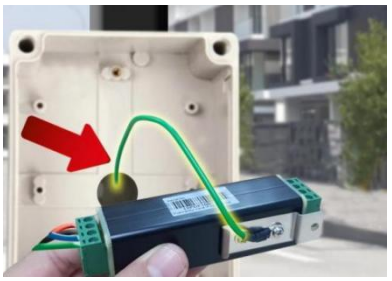


MAC316 MAG Metal Box and data surge protector connect to AC EARTH

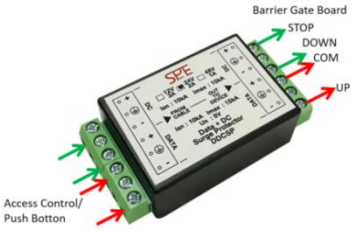
Barrier gate



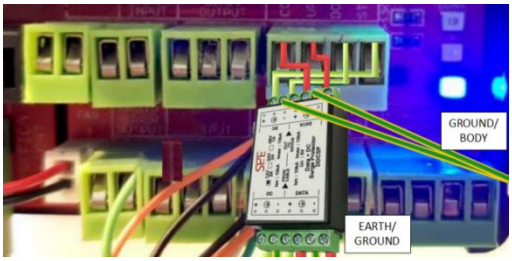
PSU1250 power supply



Surge protector



SPE-D12V protecting UP, COM, DOWN, STOP input of barrier gate board

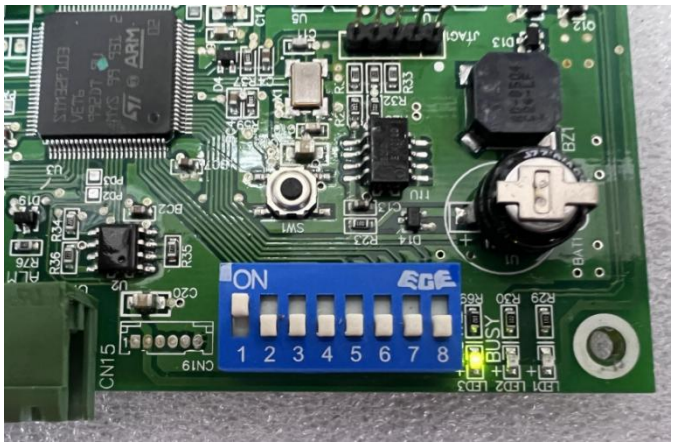


MAC316 Setup

After complete the hardware installation and wiring, we shall continue with hardware setup before we go to the software setup.

1. Set Node ID for the controller.

    a) On the right side of the controller there are a dip switches, the dip switch is use to set the Node ID.

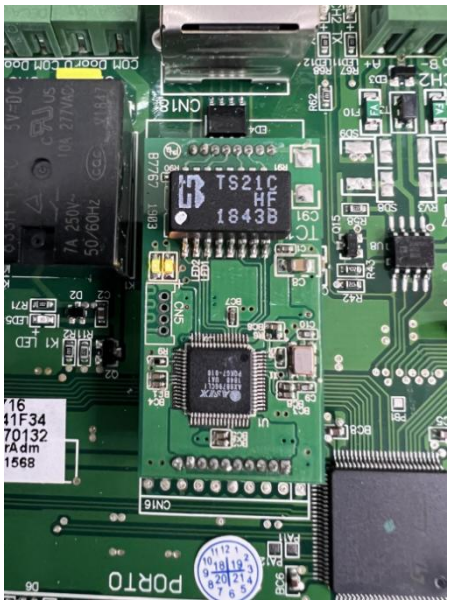


    b) The Node ID as the controller address to add the controller on the ME-ACS.
    c) Turn the toggle down to assign the Node ID for the controller. Maximum Node ID can be set is 255.
    d) Refer to the side of the dip switch there are number to indicate the toggle. For example the you want to set to Node ID 3, you need to turn down toggle number 1 and 2. (1+2=3)

2. Set the IP address, sub net mask and gateway for the controller.

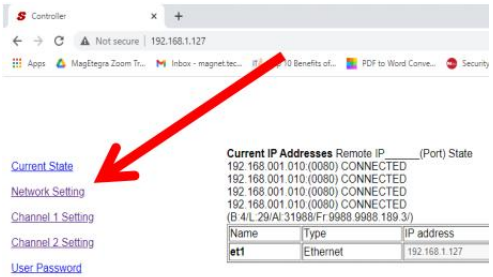
    a) The network connection parameter of MAC316 can be configured via web. browser by direct connection to the PC or network switch before installation.

b) Double confirm the green LINK LED at controller main board and network module is light up to ensure the controller is successfully connected to the TCPIP network.

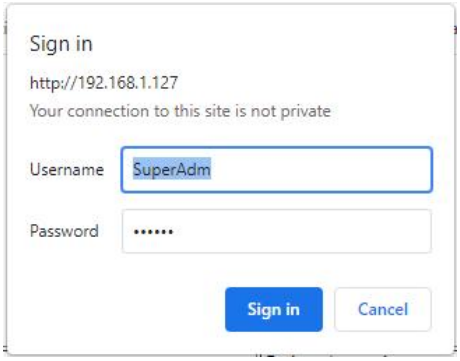


c) Open web browser such as Google Chrome or Microsoft Edge. Key in the default IP Address 192.168.1.127 at the search bar then press ENTER to access the setting page of MAC316.

d) Click on the *Network Setting.*



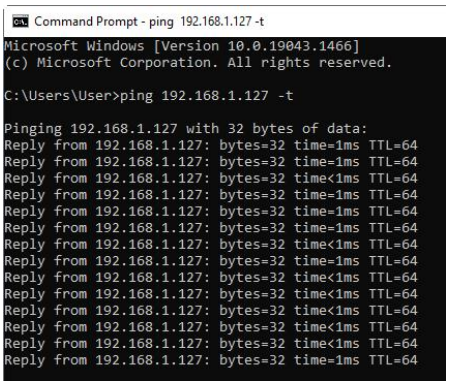
e) Enter the default *Username*: SuperAdm and default *Password*: 721568 then click sign to proceed.



f) Please set the relevant IP address, gateway, and LAN Net Mask to join the site's local area network. Click *Update* to save the setting.

Item	
Device Name	S2E-Device
LAN IP Address	192.168.1.127
LAN Net Mask	255.255.255.0
Default Gateway	192.168.1.254
Primary DNS Server	168.95.1.1
Secondary DNS Server	168.95.1.192.1
MAC Address	00-13-57-03-F5-9A
HTTP Server Port	80 (80~65530)
TCP I/O Control Port	502 (502:Modbus,1601,1625~65530)
DHCP Client	☐
	Update

g) You can PING the MAC316's new IP address from the target MagEtegra ME-ACS software's PC to ensure correct network parameter and consistent fast connection with minimum delay.



AR721H reader interface setup

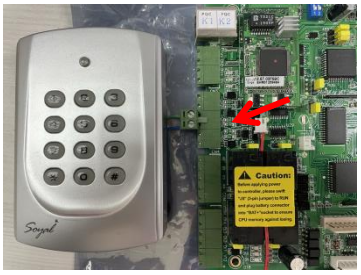
Enter Programming Mode (*123456#)

Operator must first enter into programming mode in order to perform setting on AR721H. Multiple setting can be done while in programming mode. Once finish setting, press *# to exit programming mode.

1. Set Node ID
00*NNN# (NNN = 001~254)

Node ID for AR721H must be set following the MAC316 controller base on the channel it is connected to.

Since you are connecting both AR721H to channel 1 of MAC316, please set node ID 1 and 2 to each reader respectively.



If you use channel 2, then the node ID is

9 and 10 to each reader respectively.

2. Set output relay duration time
02*001# (set 1 sec relay time)

This is to set relay trigger time upon approved access. AR721H is triggering COM and UP on barrier board. You must always set it as 1 sec to avoid barrier arm not closing when a fast car passed through.

3. Set Entry and Exit Reader
(For Anti-Passback Only)

Each reader need to defined whether they wil be used for Entry or Exit lane.

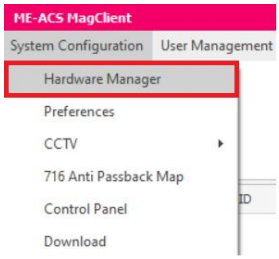
Entry reader = 20*208#
Exit reader = 20*144#

Anti-passback will be enabled automatically upon correct setting.

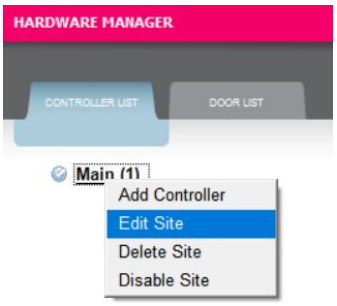
MagEtegra ME-ACS Software Setup

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

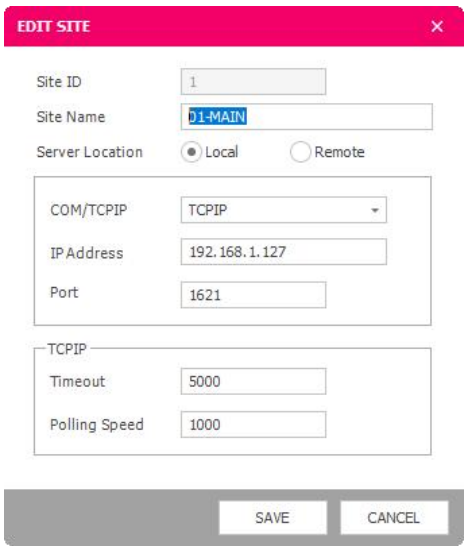
1. Run MagClient --> System Configuration --> Hardware Manager



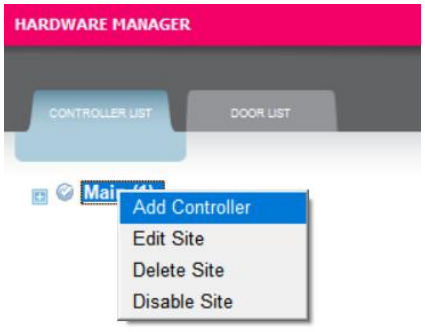
2. Right click on Main --> Click Edit Site



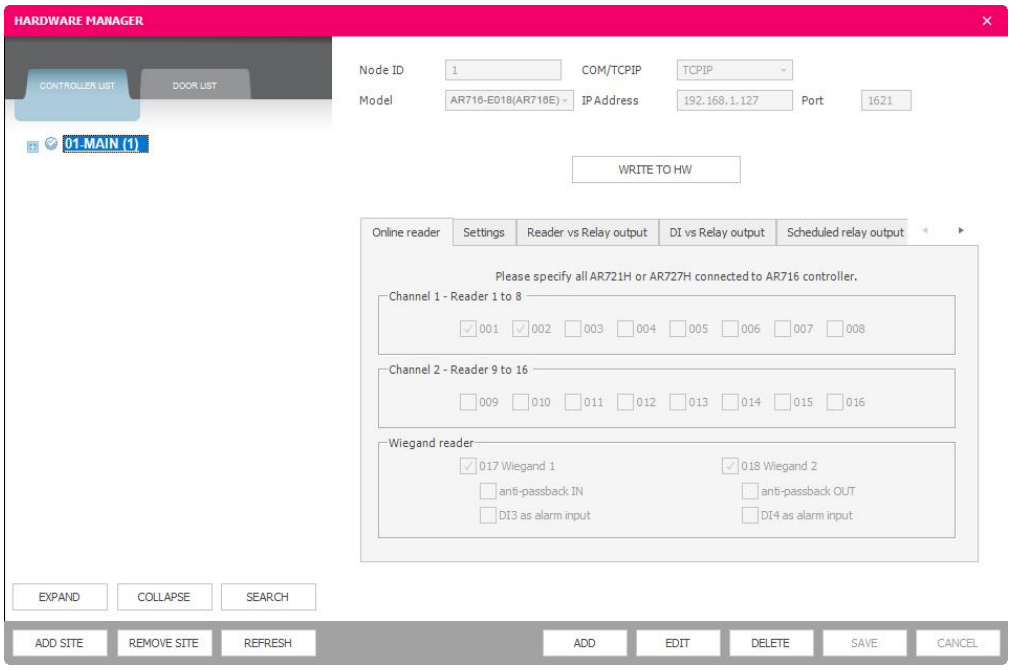
3 .Select TCPIP ,for default IP for reader is 192.168.1.127 and port 1621,Independent IP must be check if using more than 1 IP, and only available in ME-ACS Pro-basic and ME-ACS Pro -Advance



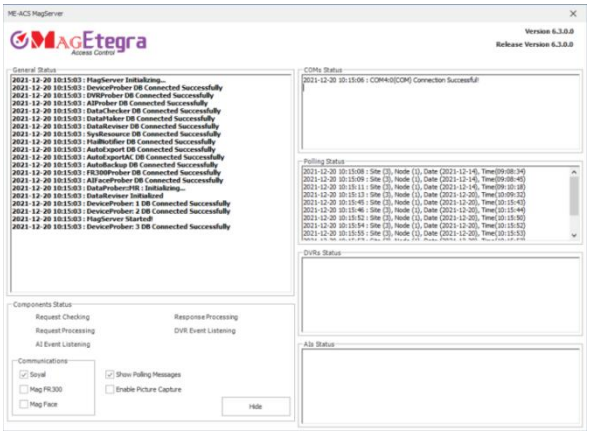
4. Click on Main to highlight it than click ADD to add controller



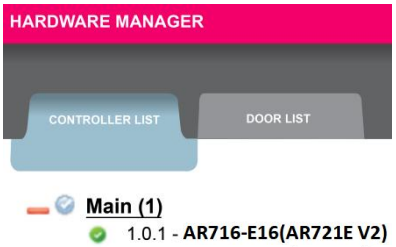
5. Click on Main to highlight it than click ADD to add controller.



6. Run MagServer and check if COM is initialized successfully --> Click Refresh in MagClient hardware manager to check MAC316 (AR721E V2) whether it is connected successfully.



MagClient will indicate “green” hardware status when MagServer successfully connected to MAC316 (AR721E V2)



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