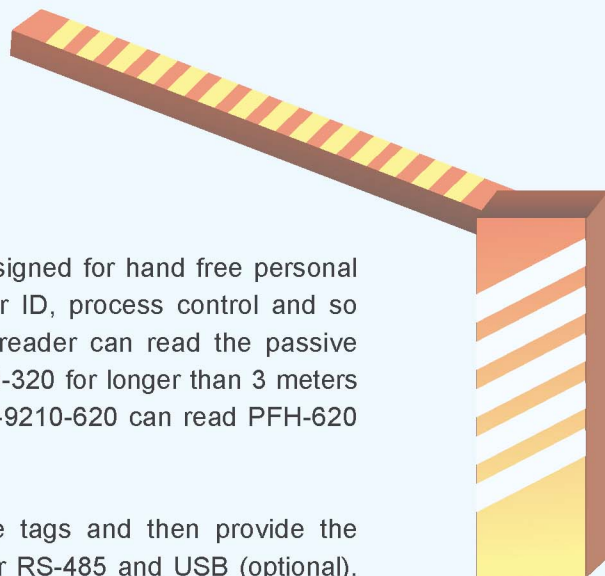




Long Range Proximity Reader

Active Tag (433.9 MHz) & Passive Card (125 KHz)

▶ PFH-9210



- **The Pegasus PFH-9210 series** are long range readers designed for hand free personal & vehicle access control, product tracking, vehicle & driver ID, process control and so on applications. Depending on models, the PFH-9210-60 reader can read the passive card up to 60 cm, PFH-9210-320 can read active tag of PFH-320 for longer than 3 meters and PFH-300 active tag for less than 3 meters. Also, PFH-9210-620 can read PFH-620 active tag to maxi 6 meters.

The PFH-9210 series readers can read cards or multiple tags and then provide the different signal formats including Wiegand, ABA, RS-232C or RS-485 and USB (optional). Multiple formats outputs in simple reader is possible to enable more than two data acquisition systems to be addressed simultaneously according to the reader configuration.








Features:

- Elegant design of PFH-9210-60 for 50~60 cm contactless reading.
PFH-9210-310, PFH-9210-320, PFH-9210-360, PFH-9210-620, PFH-9210-660 for 3 ~ 6 meters hand free reading.
- PFH-9210-360, PFH-9210-660 with dual frequency technologies for vehicle & personal identification (both 125 KHz & 433.9 MHz).
- Build-in beeper sound with two color LED (Red/Green) indicators.
- Waterproof seal and potted epoxy for weather resistant and suitable for indoor / outdoor operation.
- Graceful & robust ABS case with screw hole and tamper switch output to prevent vandalism.
- Well automatic tuning to prevent frequency shifting.

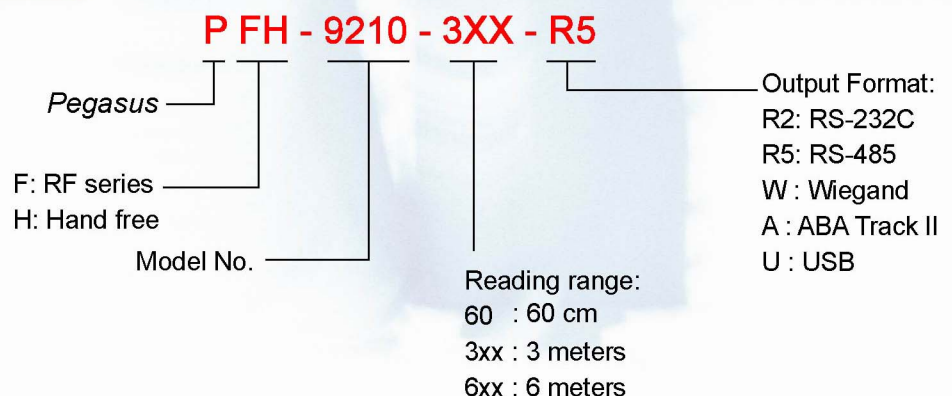
Specifications :

▶ Long Range Proximity Reader

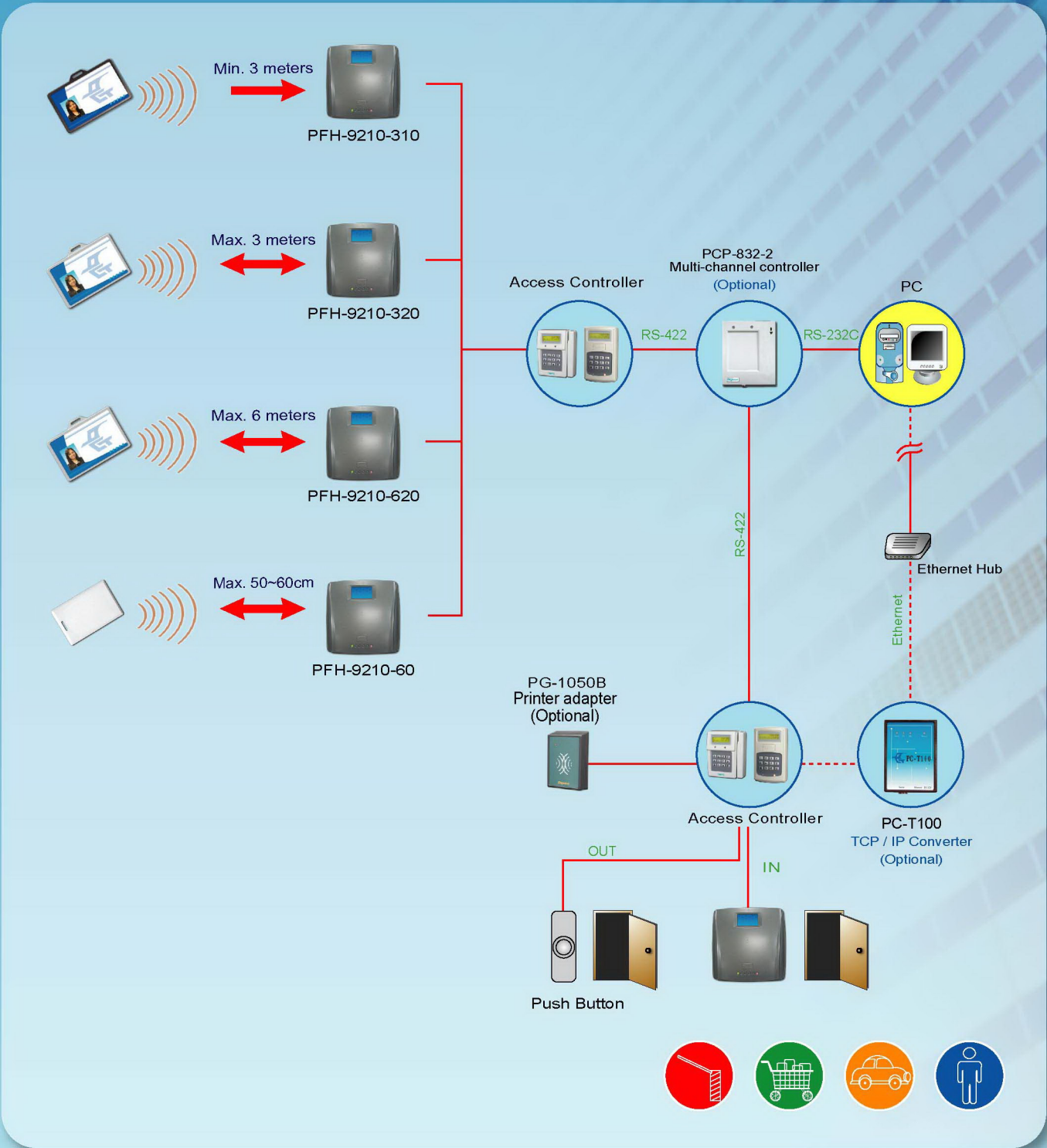
| Model No. | PFH-9210-60 | PFH-9210-310 | PFH-9210-320 | PFH-9210-620 | PFH-9210-660 |
|--|---|---|--|---|---|
| Reading Range | Max. 50 ~ 60 cm | Min. 3 m can up to 15m on environment | Max. 3 meters | Max. 6 meters | Max. 40 cm for EM card Max.6 meters for Hand free card |
| Buzzer | Yes (Built - in) | No (Built-in driver for external buzzer) | | | |
| Applicable Card | EM-125KHz card PG-PROXS-L-Y1 | PFH-300 | PFH-320 | PFH-620 | standard EM card & PFH-660 |
| Operating Frequency | 125 KHz | 433.9MHz | 433.9 MHz & 125KHz | | 125 KHz & 433.9 MHz |
| Modulation | ASK | Transmit coded - ASK, Receiving - Super Heterodyne | | | |
| Output Format | RS-485, RS-232C, Wiegand or Pegasus format ABA Track II magstripe format | | | | |
| Indications | 2 color LED (Red and Green) | | | | |
| Mounting / Waterproof | Surface mount | | | | |
| Operating Temp. | -20°C ~ 60°C | | | | |
| Humidity | 10% ~ 90%RH (Non condensing) | | | | |
| Dimension (W)x(L)x(H) mm (W)x(L)x(H) inch | 270 (W) x 270 (L) x 39 (H) 10.63 (W) x 10.63 (L) x 1.54 (H) | | | | |
| Operating Voltage / Current | 12 VDC/200mA | 15 VDC/300 mA | | | |
| Material | ABS | | | | |
| Weight | 2.00 Kg ±5% | | | | |
| Color | Black | | | | |
| Picture |  |  |  |  |  |

Ordering information:

➔ For PFH-9210 Long Range Proximity Reader



Typical configuration:



* We reserve the right to change the specification without notice or obligation !



CAT:050920

INSTALLATION INSTRUCTIONS

PFH-9210-620-1/W Long Range Proximity Reader

● **INTRODUCTION :**

PFH-9210-620-1/W is one of the most secure indoor/outdoor long range RFID reader which is an advanced RFID active reader with smart design. It supplies with the top reliability and performance.

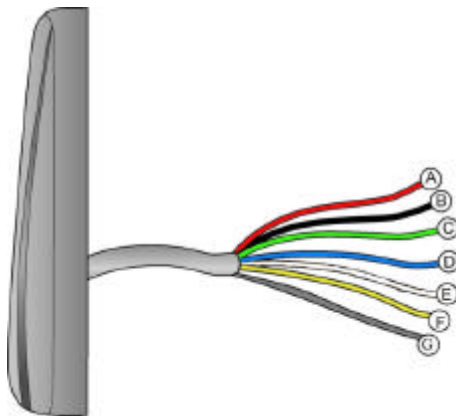
● **SPECIFICATIONS :**

| | |
|-----------------------------|---|
| Model No. | PFH-9210 |
| Card / Keytag | PFH-620 |
| Dimension | 270 (L) x 270 (W) x 39 (H) mm |
| Mounting | Surface Mount, waterproof |
| Reading Range | Max. 6 meters |
| Operating Temperature | -20°C ~60°C |
| Humidity | 10% ~ 90%RH, non condensing |
| Directivity | Omni-directional |
| Modulation | Transmit coded –ASK, Receiving – Super Heterodyne |
| Operating Frequency | 433.9 MHz |
| Output Format | Wiegand output |
| Indications | 3 color LEDs (Red, Amber and Green) |
| Buzzer | No (Built-in driver for external buzzer) |
| Operating Voltage / Current | 15 VDC, 300 mA |
| Material | ABS |
| Weight | 2.00 Kgs ± 5% |

● **INSTALLATION GUIDE :**

1. Please select an appropriate place to install the reader and mark the location of mounting holes through the screw holes of the template.
2. When the reader is power on, the right LED will turn to Red; if the legal card is read, the left LED will turn to Green.
3. The card reading is valid only when the middle LED turn to Amber.
4. Please make sure 15 VDC linear type (not switching type) power supply that is isolated from other devices.
5. Once you use a separate power supply for the reader, a common ground should be connected between the reader and control system.

● **WIRE CONFIGURATION :**

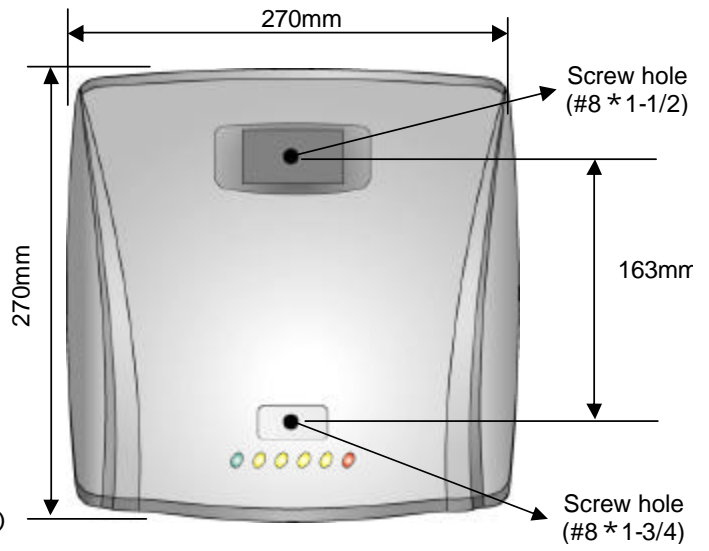
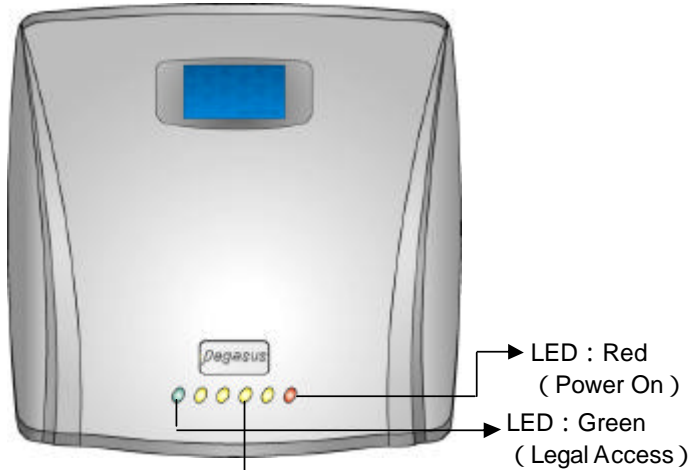


| Pin No. | Wire Color | Function |
|---------|------------|-----------------------------------|
| A | Red | 15V DC + |
| B | Black | DC V - |
| C | Green | DC V - |
| D | Blue | -- |
| E | White | Data 1 Vehicle loop detector |
| F | Yellow | Data 0 |
| G | Gray | |

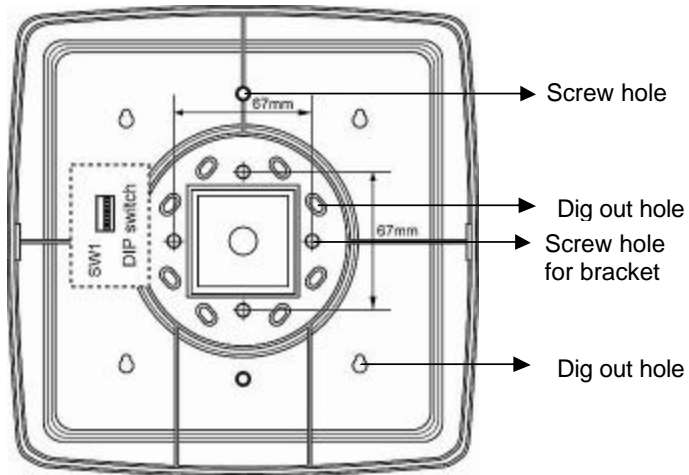
Noted : 1. The **PIN C(green)** or **PIN D(blue)** must be shorted to **PIN B(black) DC V-** to read the card.

2. The reader will only be powered when **PIN G(Gray)** is connected to +15V power supply (min. 300mA). The **PIN G(Gray)** can be controlled by relay contacts which is controlled by timer delayed relay. After effective reading, it will be disable for a few seconds during vehicle passes the gate.

• **FRONT PANEL :**



• **BACK :**



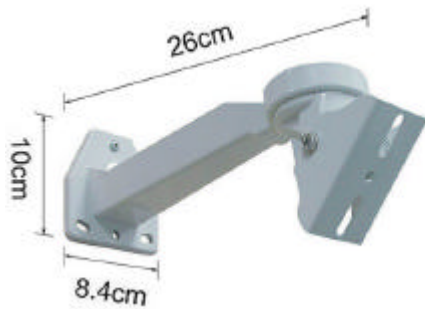
? PACKAGE CONTENTS

DESCRIPTION

Q'TY

| | |
|------------------------------|------|
| Screw | 2pcs |
| Screw (M5X20) | 2pcs |
| Screw nut | 2pcs |
| Washer | 2pcs |
| Switching Power supply 15VDC | 1pc |
| Sticker | 2pcs |
| Manual | 1pc |

Optional accessory: the bracket for PFH-9210 series: (Model no. : PGV-BRACKET/L205)



SW1 definition

| | SW Function | ON | OFF |
|---------|----------------------|-------------------------|-----------------------------|
| SW#1 | Loop sensor check | Check Entry/Exit sensor | Not check Entry/Exit sensor |
| SW#2 | Operation mode | Time mode | Automatic mode |
| SW#3 | Double reading check | NO | YES |
| SW#4-#6 | Time selection | Refer to timer table | |

Example A: Automatic mode (" ? " : means don't care) Send signal one time only

| 1 | 2 | 3 | 4 | 5 | 6 | Function |
|----|-----|----|---|---|---|--------------------------------|
| ON | OFF | ON | ? | ? | ? | Reading the card only one time |

Example B: Timer mode (Periodically send signal by timer)

| 1 | 2 | 3 | 4 | 5 | 6 | Function |
|----|----|----|-----|-----|----|--|
| ON | ON | ON | OFF | OFF | ON | Periodically send signal every 5 seconds |

? Timer Table:

| 4 | 5 | 6 | Stop Time |
|-----|-----|-----|-----------|
| OFF | OFF | OFF | 0.5s |
| ON | OFF | OFF | 1s |
| OFF | ON | OFF | 2s |
| ON | ON | OFF | 3s |
| OFF | OFF | ON | 5s |
| ON | OFF | ON | 7s |
| OFF | ON | ON | 10s |
| ON | ON | ON | 18s |

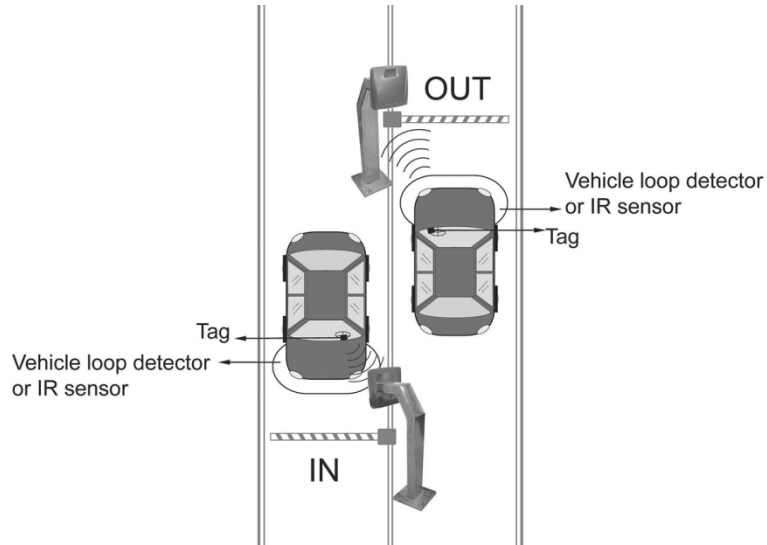
■ Default Value

• Installation of Parking Controls:

Install of two PFH-9210-620 at different place individually

Installation Location:

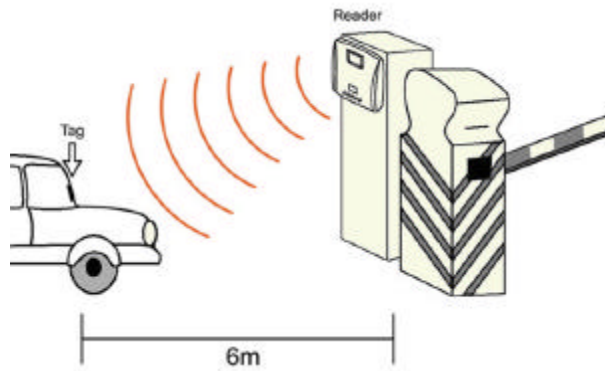
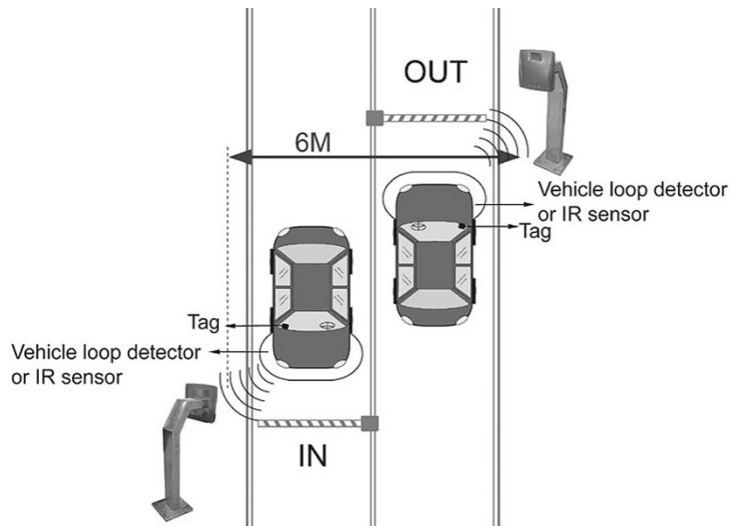
1. Leave over 6m between entrance and exit reader to avoid the both frequencies interfering with each other.
2. Install Reader at the left side of vehicle lane, and place the Tag at the left top windshield of car.



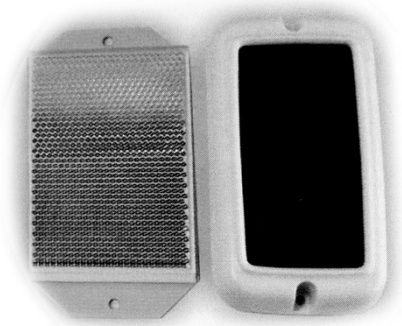
Install Two PFH-9210-620

Installation Location:

1. Leave over 6m between entrance and exit reader to avoid the both frequencies interfering with each other.
2. Install Reader at the right side of vehicle lane, and place the Tag at the right top windshield of car.



IR Sensor



Vehicle loop detector



FCC Statement

• Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures: Reorient or relocate the receiving antenna.

- . Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- . Consult the dealer or an experienced radio/TV technician for help.

• FCC Caution :

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

Specifications are subject to change without any notice for further modification.

PP-2752 Connecting Diagram Of Long Range Hand Free Vehicle

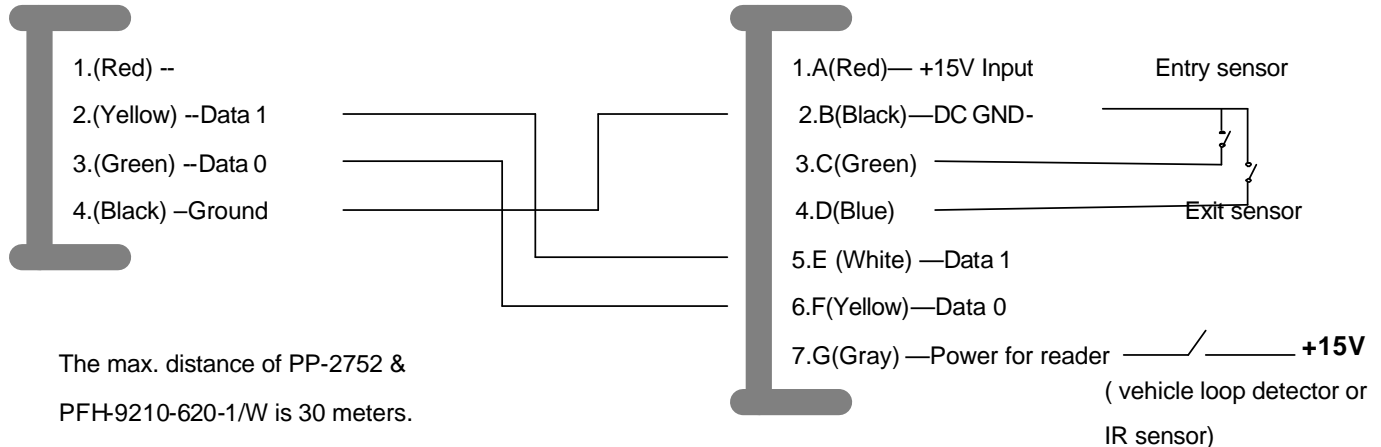
Access Control System



Ver.5.02

PP-2752 Controller 4 PIN Wiegand port (white)- **JC**、**JD**

PFH-9210-620-1/W Receiver 7PIN wire

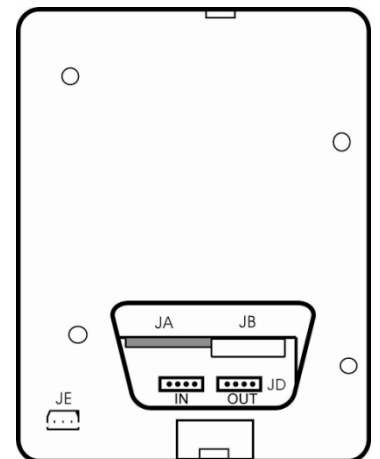
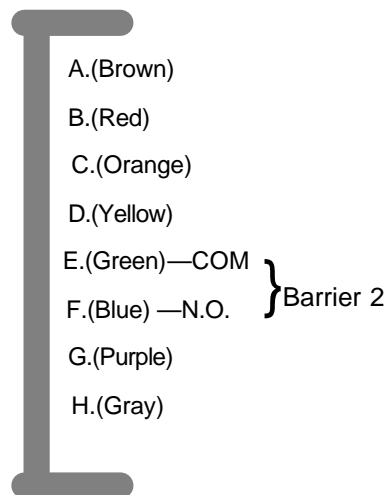
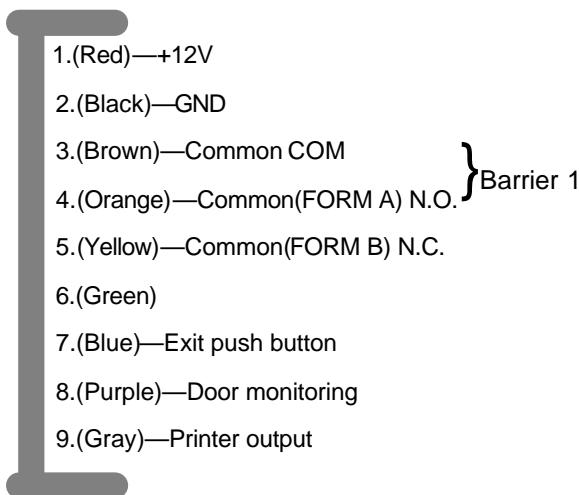


Noted : 1. The **PIN C(green)** or **PIN D(blue)** must be shorted to **PIN B(black)** DC Ground to read the card.

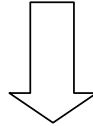
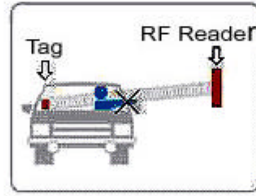
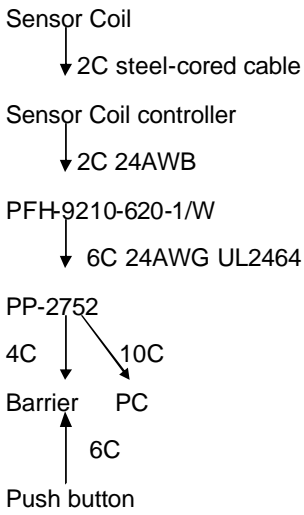
2. The reader will only be powered when **PIN G(Gray)** is connected to +15V power supply (min. 300mA). The **PIN G(Gray)** can be controlled by relay contacts which is controlled by timer delayed relay. After effective reading, it will be disable for a few seconds during vehicle passes the gate.

PP-2752 Controller **9 PIN** connector JA (**blue**)

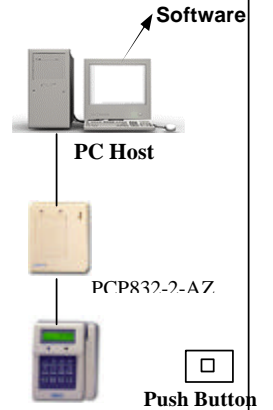
Controller **8 PIN** connector JB (**white**)



- Remarks:
1. you could use sensor coil controller or IRF sensor to compatible with entry / exit sensor.
 2. sensor contact : it' s a dry contact, when the vehicle reach it becomes short output which is outputted by coil sensor or IRF sensor.
 3. The PP-2752 could parallel many PFH-9210-620-1/W receiver boxes at the same time, but the distance of receiver box and receiver box has to be kept min. 2 meters.



Optional installation



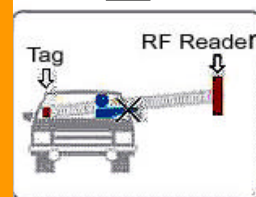
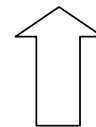
* When a car passes a sensor coil, the sensor coil controller will start PFH-9210-620-1/W to receive signal of PFH-620 hand free card. If the PFH-620 card is legal, the PFH-9210-620-1/W will place an order to open the barrier and store all access records in PP-2752, you also could connect PP-2752 to PC and upload all access records to PC.

* Push button is used in emergency.

*The distance of PP-2752 and PFH-9210-620-1/W can't exceed 30 meters.

* Our PP-2752 has Anti-pass back function, please follow below points and decide whether use the function or not.

1. It's a better environment when entrance and exit is not a same lane.
2. If entrance and exit is a same lane, you could install coil sensor or IRF sensor to assist our system to judge the direction of cards. Nevertheless, below situations may happen wrong judgment.
 - a. Two-way lane has cards
 - b. Another card follow closely front card.



PFH-620