1. UHF RFID Antenna
2. Controller
3. IP CCTV
4. Security Screen POP UP
5. Boom Barrier
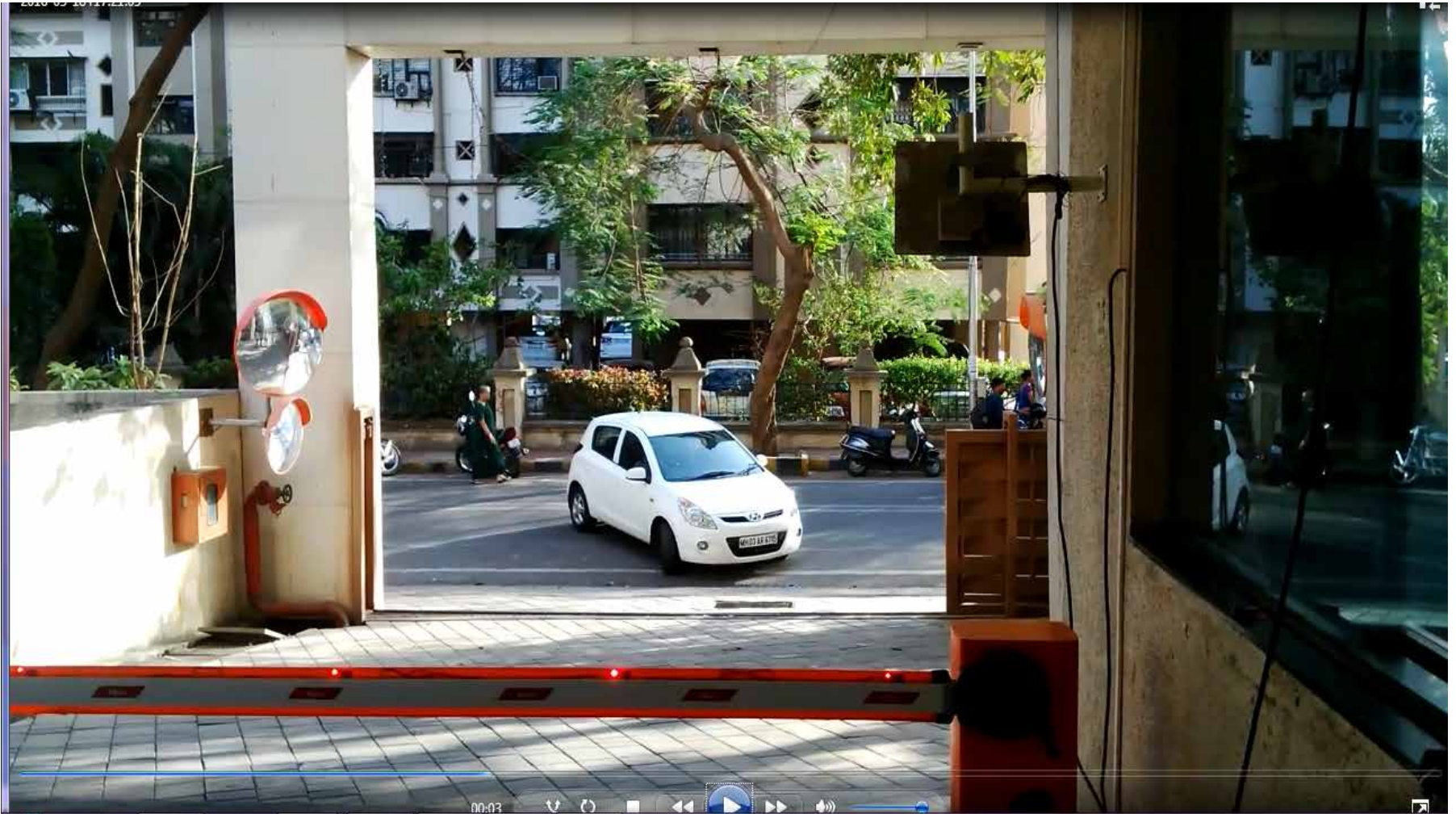6. Speed Barker
7. RFID Tag/ Cards

*Please Note –Taking snap shot with CCTV camera and storing in database is possible only if their is network connectivity all the time.
*For CCTV integration need to purchase licence of Vitrax software
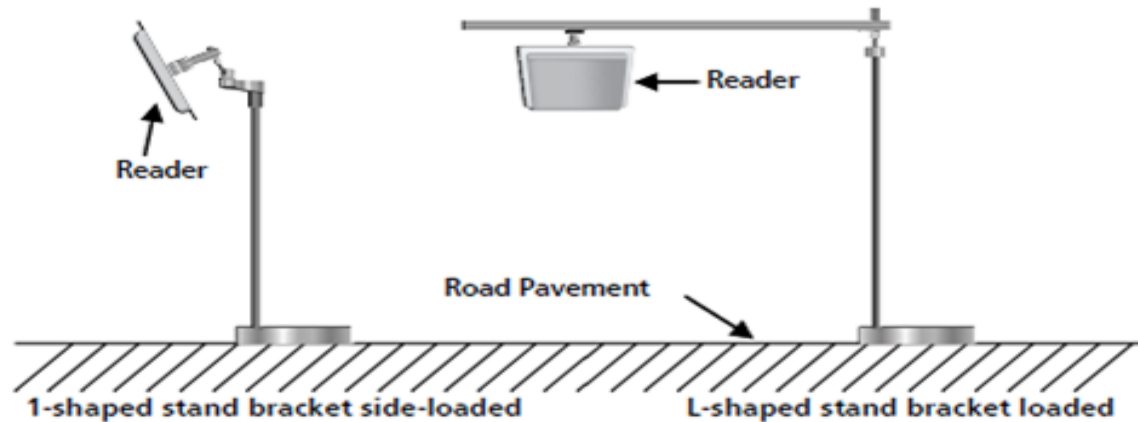
Sample Mounting

Sample Mounting

Installation of long range reader is important to get max range in correct angle. Below are some points which need to be learn before starting installation.

- If Barrier is wider than 6 meter, reader need to be install on middle of Gate with L shape pole. L shape pole need to be 4 meter height and need to be position in such a way that reader will face road in perpendicular.

- If Barrier is less than 6 meter, then straight pole of 3 meter can be used. Reader need to be on 2 meter height with 30 degree angle to earth.

- It is recommended to put speed breaker before UHF reader to reduce speed of car.

- From Reader to speed breaker 2 meter distance and from Reader to Barrier 1 Meter minimum distance.

- Stainless steel mounting bracket are provided with Reader to mount on Pole.

- Pole diameter suggested is 3-4 inch.

- Below is wiring for 1 Reader and 1 Barrier.

- For Reader, AC supply need to take till pole and need to give to adapter which comes along with Reader. Not to extend DC power supply. (No Power drop).

- No vehicle should park within 12 mtr from reader with UHF tag.

Figure 3: Reader Fixing Mode

Each installation method is selected based on application requirements and actual location. The user can use the provided template to install AY-U900 reader in more convenient and easier way, but the read distance is a little short; the situation becomes opposite if using the latter.

3.1.1   1-Shaped Stand Bracket Side-Loaded

In this method, the stand pole installed to the AY-U900 reader should have a diameter of between 50 and 60 mm and the length of 2.2 m. The pole should be made of stainless steel with a thickness of more than 1.20 mm.

Use the fastener contained in package box to mount AY-U900 reader to the top of the stand pole according to actual vehicle type (mainly large car and small car) and then adjust the height from the center of AY-U900 reader to lane level to be around 2.0 m (between 1.8 and 2.2 m).

3.1.2   L-Shaped Stand Bracket Top-Loaded

In this method, the L-shaped stand pole (or dragon shape) installed to AY-U900 reader should have a diameter of between 60 to 80 mm. The pole should be made of stainless steel with the thickness of more than 1.20 mm.

Use the fastener contained in package box to mount AY-U900 reader to the rail near the center of the lane.

Adjust the height between the rail and the ground to between 3.5 to 4.0 m, depending on the height of vehicle.

3.2   Adjusting the Azimuth Angle of Antenna

The angle of inclination with the ground plane of the antenna should be approximately 60° to 75°, while the deviation angle of the antenna should be biased towards the lane direction (Figure 4).

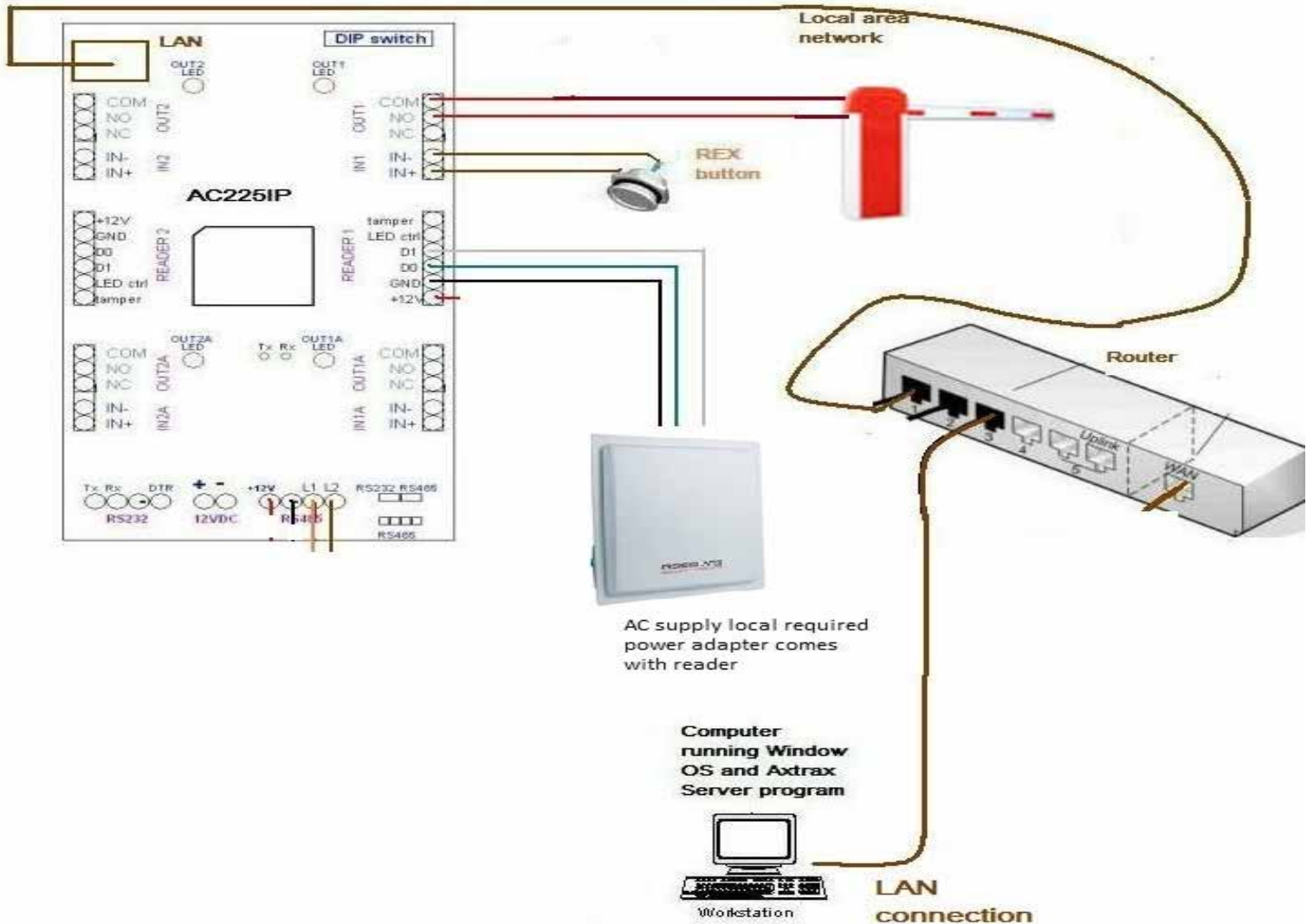# Rosslare UHF Tag (UVG-26A-3000 / UVT-26A-3000)
Installation of Tags

- Rosslare UHF Tag is designed to be mounted in a horizontal direction on the inside of the vehicles windshield/windscreen.
- This tag is tuned to the dielectric properties of the windshield glass so proper performance is achieved only when stuck to the windshield glass.
- The Rosslare UHF Tag must be mounted at least two inches from the metal support posts on either side.
- The preferred placement is at the top /right (driverside) of the windshield or at the middle of the windshield.
- This mounting position is always recommended when the Reader is positioned on the right side of the travel lane.

Precautions
1) the mounting area must be clean and free of oils or cleaning solutions. Do Not Attempt to remove this sticker once it is applied, you are very likely to compromise the antenna which will render the tag useless.
2) Do not bend the tag when removing the backing or applying to the windshield, as this can damage the chip or antenna and make the tag stop working. The tag cannot be repaired and must be replaced.

Tag care - Following precautions will help in reducing chances of damage.
1) strictly avoid bending or folding of the tags
2) Don't staple/ clip tags to paper
3) Don't write on tags with a ballpoint pin
4) Don't allow the tags to get wet

LAN

DIP switch

OUT2 LED

OUT1 LED

COM
NO
NC
OUT2

COM
NO
NC
OUT1

IN-
IN+
IN2

IN-
IN+
IN1

REX button

AC225IP

+12V
GND
D0
D1
LED ctrl
tamper
READER 2

tamper
LED ctrl
D1
D0
GND
+12V
READER 1

COM
NO
NC
OUT2A

OUT2A LED

Tx Rx

OUT1A LED

COM
NO
NC
OUT1A

IN-
IN+
IN2A

IN-
IN+
IN1A

Tx Rx   DTR   + -   +12V   L1 L2   RS232 RS485

RS232   12VDC   RS485   RS485

Local area network

Router

AC supply local required power adapter comes with reader

Computer running Window OS and Axtrax Server program

Workstation

LAN connection

AXTRAX server connected to AC225IP

System Requirement

- AxtraxNG Access control management software is SQL based(SQL comes with ROSSLARE software).

- System to install AxtraxNG software requires is minimum window 7 service pack 1 with 4 GB ram.

- System should have TCP/IP connection.

- Software to set AYU900 Reader Range is supplied with reader.

- Reader need to connect on com port to set range.

- RS232 cable comes with Reader.

- For Vitrax Video Management software, PC specification as below :
    1. CPU model: INTEL Core 2 Duo 2.6 Ghz
    2. Ram: 3GB or more
    3. Storage: more than 1Tb
    4. Network bandwidth: 100Mb/s

Please Note for CCTV integration and Parking management system always need in network so that data is updated in system real time.

FAQ

- What Type of cable require for reader to controller?

  Between Reader to controller 4 Core cable is required between controller and Barrier 2 Core cable required. (1 SQ MM Shielded)

- What type of cable require for controller to pc.

  Controller has on Board RJ-45 port so TCP-IP cable required

- What type of power supply require for our system, like any adopter etc.

  Controller has Built-in transformer so 230V AC power supply required, Reader supply with Power adapter (Power supply required for the reader)

- What mounting Accessories required to mount the reader

  We are supplying Mounting brackets along with reader pole need to be fabricate locally.