

VOYAGER 2

rayTEC[®]

innovation + illumination



Component Listing

Voyager 2 ANPR camera
Mounting Bracketry: U Bracket and Wall Bracket
Voyager 2 PSU

Installation Guide

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1. Introduction

Voyager 2 comes pre-aligned and set up for the stated distances.

These distances relate to standard UK number plates for use with ANPR software.

The system is designed to provide an image ~3m (10 feet) wide at the stated distance.

When NOT using standard UK plates – please allow for difference in font size and adjust distance accordingly.

When NOT using with ANPR software longer distances can be achieved with UK plates.

Voyager is designed to work with number plates which are RETRO-REFLECTIVE.

For help or assistance with your particular installation please contact our technical support team.

There should be no need for the user to modify the set up in anyway.

Voyager 2 is a combination of camera, lens and cool running Infra-Red technology – all in a protected housing, pre-wired and calibrated for immediate use. The unit is supplied with dedicated PSU.

The system is designed so that the camera and Infra-Red work in conjunction to provide high quality pictures of the number plate on a 24 hour basis. The camera and the LED are synchronised to achieve maximum performance and the LED is continuously on (in pulsed mode).

The system is designed to provide pictures of number plates on a 24 hour basis – and is not designed to provide any additional video information. In overcast days and in low light – the system will still provide excellent images of the number plate – but no other video information will be available.

All voyager systems are designed to work with retro-reflective number plates found in the UK, the majority of Europe and most parts of US and Canada. If you are unsure about the nature of your number plates – please do not hesitate to contact us.

2. Connections

The following wire connections must be made from the camera to the PSU provided:

1- Power. Red (+ve) and black (-ve) cores – wire into the power supply as shown in the picture below. This connection is polarity sensitive.

2- Video

Connect video out of the system to required viewing device – ie CCTV monitor, ANPR computer system.

Yellow = video

Shielding = ground

Ensure all connections are sound.

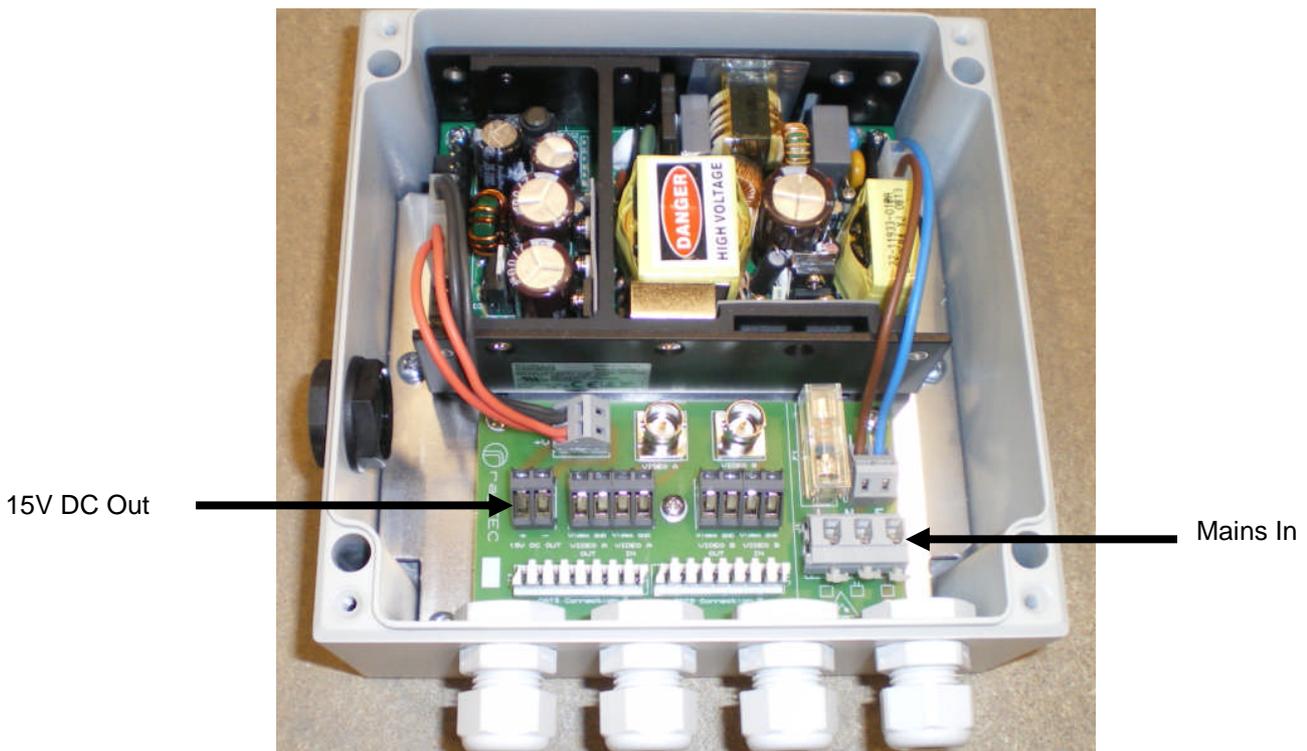
The system provides standard analogue video output.

Quick-Fit Installation Instructions:

- 1) Wire video and power connections.
- 2) Ensure the Voyager 2 is installed in a well ventilated area.
- 3) Adjust target area of the camera by adjusting the bracket supplied. This is best achieved by using a Car or number plate in the target position when the system is running.
- 4) After target area achieved – ensure the bracket connections are tightly secured.
- 5) Do not continually stare at the LED unit from less than 1.5m during operation.

PSU unit Installation:

- 6) Ensure power supply is mounted securely to a flat external surface in a well ventilated area, externally.
- 7) Isolate the mains supply at all times whilst the lid is removed from the PSU.
- 8) Wire mains input and ~15 VDC output as shown on PSU diagram.
- 9) Power Control – Output power of the LED unit can be controlled by adjusting the pot in the rear of unit. Each unit is factory set to maximum power.
- 10) Ensure the power supply enclosure is fully sealed and watertight before operation.



3. Alignment

For accurate number plate capture do not exceed the quoted distances for the product. This is the total distance from Voyager 2 to the target plate.

The angle from Voyager 2 to the target plate should not exceed 30 degrees.

Voyager 2 is designed to provide approximately 3 metres coverage at the stated distance.

Set up is most easily achieved during the day. Once the unit is powered up and the video signal connected to a monitor, point the camera at the desired target area. View video signal on a monitor to ensure desired result is being achieved. There is a BNC output provided in the dedicated PSU provided to allow connection of a local monitor.

Set up is most easily done using a number plate.

Quick tip: Check infra red is working properly by covering it totally (the dull red glow indicates the IR). The installer should notice a significant drop in the video level of the number plate.

Adjust viewing angle of lamp by loosening bolt on the bottom of the mounting bracket – this will allow full adjustment of the unit in any required plane.

If using with ANPR software, try and ensure number plate is as level as possible.

When desired position is achieved, fully tighten bolt on the bottom of the mounting bracket.

Mounting

The mounting bracket provided is designed to fit easily to a wall directly or to a pole (with optional Pole Mount Bracket PBC1) and provides full x,y,z adjustment of the system.

4. Adjustment

The only user adjustment within the Voyager 2 is for the power rating of the Infra Red lamp. We would not normally recommend adjusting this. However, the power can be reduced by turning the pot as show. This may effect synchronisation of lamp + PSU.

5. Troubleshooting

If you are not achieving the desired results, then check the following items:

1. Ensure total distance from Voyager to target number plate does not exceed the stated distance
2. Ensure angle to number plate does not exceed ~30 degrees.
3. Ensure all connections sound:
Power Input : red (+ve) and black (-ve).
Video Output: yellow = video, shield = ground.
Ensure ~15Vdc input @ 1A
4. Ensure that the video output from the camera is wired into and out PSU to ensure pulse/synchronization works correctly.
5. Ensure there are no obstructions in the way of the system which may interfere with IR.
6. Ensure Infra Red on – red glow should be visible
7. Ensure green LED in the dedicated PSU is on – this denotes that power is on
8. Ensure green LED in the back of the internal PCB is on – this denotes that power is on.

For further technical support please contact Raytec.

6. Technical Specification

[Subject to change as part of Raytec's continuous improvement program]

Voyager 2 PSU	
Input	AC 85-265 universal
Output	~15V dc @ <4A

Input:	Mains – 110V to 230V AC
Consumption	< 40W
Sensor	1/3" X-View B/W Sony CCD Sensor
Effective Pixels	752H x 582V
Scanning System	2:1 Interlace
TVL	570 TVL
Signal System	CCIR (EIA Available – please specify)
Shutter Speed	Set to remove image blu
Video Output	Composite 1Vp –p CVBS @75 ohms Balanced video output option @ 100 ohms (20D35XB)
Min Illumination	0 Lux operation with integrated IR
Operating Temperature	-20 to + 40°C
Storage Temperature	-5 to +40°C
Weightexcl bracket	1.6kgs
Weight incl bracket	2.2kgs
Dimensions (excl bracket)	170mm x 180mm x 115mm (LxWxH)
Dimensions (incl bracket)	280mm x 180mm x 250mm (LxWxH)