

BirdView Monitoring System

Making Public Transport – attractive, efficient and safe



For all vehicles, the blind spot can become a serious problem. The bigger the vehicle, the bigger this hidden area will be. In the case of buses, the blind spot can hide pedestrians, cyclists or even entire cars.

The Thoreb Bird View monitoring system provides a virtual 360° view of the vehicle's surroundings from a bird's eye perspective. The technology assists drivers to park more easily, as well as survey the area around the vehicle. The system is an invaluable assistance when turning corners with crowded pavements, lane driving, or driving where it is very narrow. Thereby the safety and convenience increase for the driver's, pedestrians' and other road users. BirdView is easy to install and set up in any type of vehicle.

The main components of the system are

- four weatherproof wide-angle cameras (at the front, rear, left and right side of the vehicle)
 - auto colour/black switch, auto day/night switch
- an image processing unit, incl. remote control
 - 4x video inputs
 - 10x inputs, for door signal, indicators, reverse gear, etc.
 - 5x Video outputs for cameras and Bird View images
- a driver display, e.g. Thoreb's D57

The driver will get

- high-resolution images in real-time
- front and rear camera views
- no more blind spot
- valuable overview of the situation all around the vehicle
- rear-view camera image when shifting to the reverse gear.

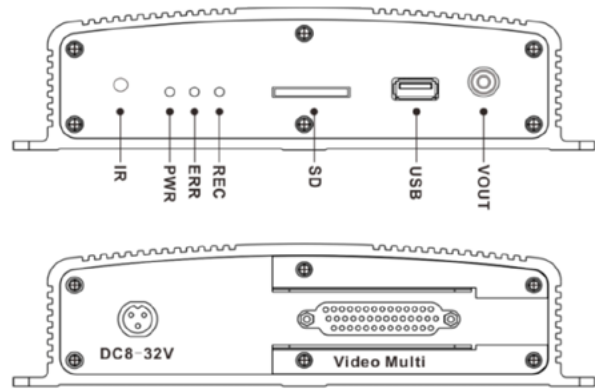
The system is easy to retrofit in all types of vehicles and can be connected to a video recorder.



Specification

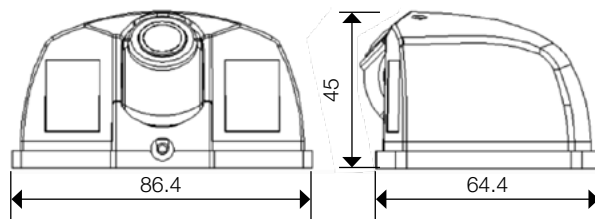
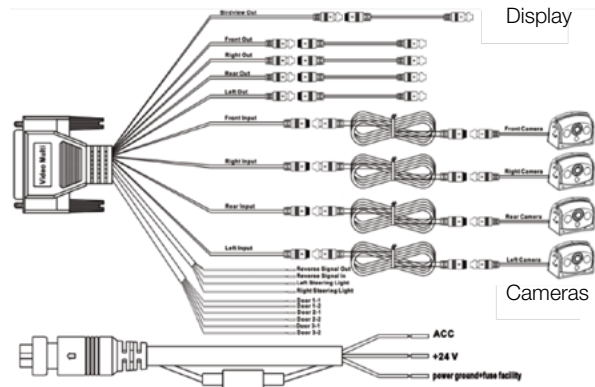
Image Processing Unit

- Dimensions 190 x 159 x 48.6 (L x W x H)
- Weight 1.2 kg
- CPU NEXPERIA vicaro2
- DDR 128 Mbyte
- Flash 16 Mbyte
- Supply voltage 9 to 32 V DC
- Current consumpt. 120 ± 10mA @ 24 V
- Operating temp. -30 to +80 °C
- Record resolution 520 TV lines
- Video inputs 4x CVBS, NTSC/PAL
- Video output 5x CVBS, NTSC/PAL
- Video output level 1.0 ± 0.2 Vp-p
- Video outp. resist. 75 Ω
- Video/audio compression H.264 (4 channels CIF, or 1 channel D1)
- SNR >48 dB
- Storage interface Micro SD 32 Gbyte max, USB 2.0
- Inputs 10x for signals inputs



Cameras

- Weight 0.7 kg
- Supply voltage 9 to 36 V DC
- Current consumpt. 120 ± 10mA @ 24 V (infrared light on)
- Operating temp. -30 to +70 °C
- IP classification 68
- Resolution 762 x 504 pixels
- Sensor IC PC1089
- TV system PAL
- Resolution 520 TV lines
- Field of vision 160 ± 5° (horizontal)
135 ± 5° (vertical)
- Min. illumination 0 lux
- Images Front/right/left cameras non-mirrored
Rear camera mirrored
- Video output Colour, 1.0 ± 0.2 Vp-p, 75 Ω
- IR light Two IR-3
- Infrared irradiation distance >10 ± 1 m
- Infrared start up environment <1 ± 0.2 lux
- Infrared closed environment >10 ± 0.2 lux



Driver Display

- D57 See separate product sheet