EN

# Bird View System

## FullHD Resolution

Ark Vision Systems

# Bird View System AVS-BirdView

Blind spots are the main cause of many personal, vehicle and material damages. All vehicles have blind spots which are obscured to the driver, making it difficult to control the vehicle safely.

Our system provides a seamless all-round bird view around the vehicle. So, blind spots will be eliminated and our system aids the driver when maneuvering and parking. The complete surround view helps to save lives, protect people, prevent vehicle damage and increase efficiency. The benefits of the system are extending beyond reducing collisions with people and objects. It also convinces with a clear view through – even at night owing to the integrated IR lighting.

In addition, features such as GPS tracking and video recording are optionally available. The display options of the monitor offer an additional function to show the full image of the respective camera along with the bird view image. This function will be activated automatically according to the driving situation for example when turning or reversing. Our system is characterized by fast installation and easy calibration.

The 360° bird view system can also be used as a 270° solution with 3 cameras.

### Manoeuvring

Owing to the seamless all-round visibility, the driver can manoeuvre his machine safely, more effectively and faster without the need for a guide.

### Turning

Due to the high HD resolution of the cameras and the enlarged display, pedestrians and cyclists can be detected early when turning off.

### GPS

The tracking of the GPS data makes it possible to follow the route of the vehicle.

### Videorecording

The permanent recording of all camera images enables clear regulation in the event of damage. In connection with emergency drives, the prescribed documentation obligation is thus fulfilled.

### Parking

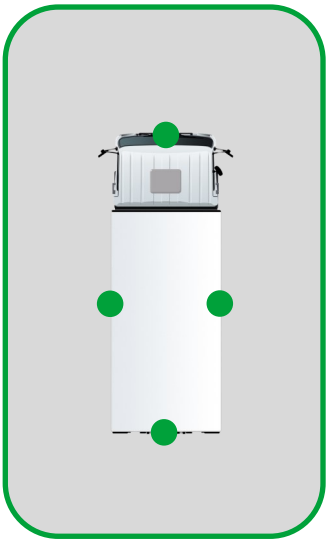
Through dynamic display of the camera images, the driver always has the most important moments in view.

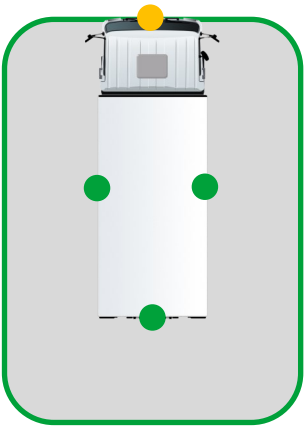
### IR-lighting

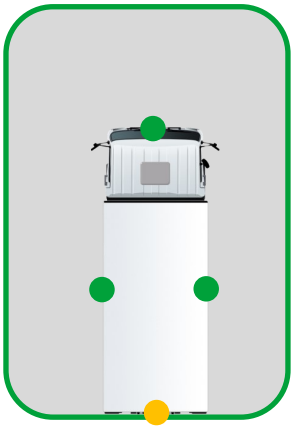
In darkness, the integrated IR illumination of the cameras makes every obstacle in the way of the reliably detected.

## 360° -Bird View / 270° Back– or Frontview

In the 360° panoramic view system, four cameras monitor the vehicle in all directions and thus provide a seamless view of all areas.
Depending on the vehicle type and application, the system can also be calibrated with three cameras to provide a 270° view. With the help of our monitor, two to three additional cameras can be controlled depending on the situation in order to monitor various areas on the vehicle, such as the goods being transported, sweeping broom or attachments.



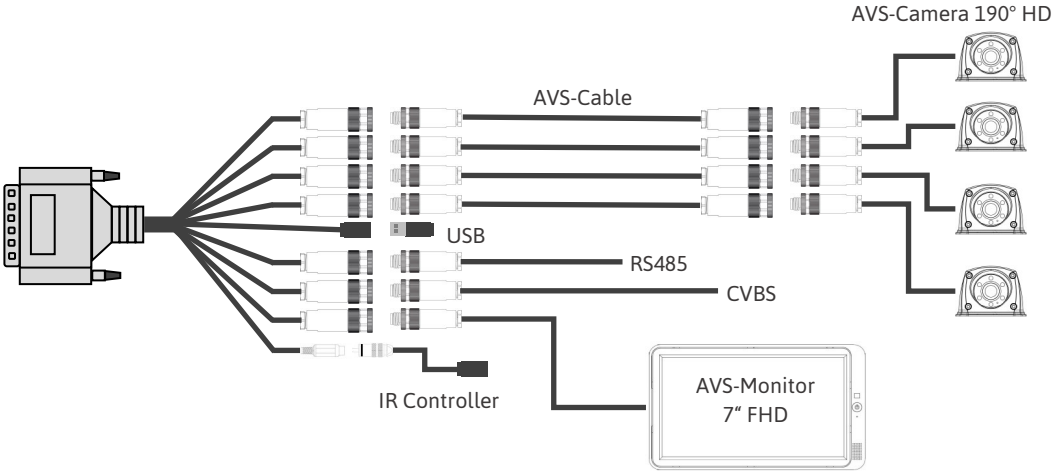




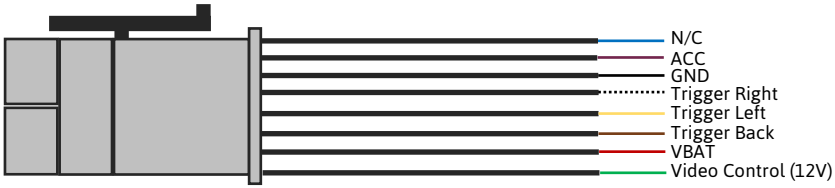
## Key Facts

- Seamless all-round bird view
- Avoidance of shunting damage
- Easy manoeuvring & parking
- Safe turning
- GPS tracking
- Evaluation of vehicle damages by video recording
- Night vision through IR lighting
- Flexible display options
- Easy retrofitting and integration into existing display systems
- Suitable for pressure washers (protection class IP69K)
- 270° view possible
- Customer-specific vehicle image
- FullHD 1080P Resolution
- Robust plug screw connection
- Cable UV and Oil resistant
- Fast, uncomplicated implemented and calibration

## System Sketch




## System Sketch & Trigger




**These trigger lines can be freely configured in the menu:**

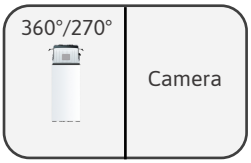
- Blue
- Yellow
- Brown
- White

**The following settings can be made for each Trigger:**

- Show Overlays (Out Rigger View)
- Left Camera
- Right Camera
- Front Camera
- Back Camera
- Quad View
- 360° View

## Horizontal Views

### Fixed settings

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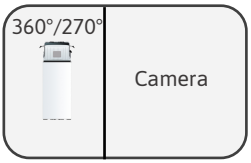


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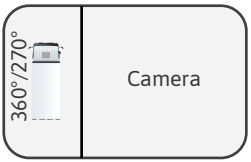
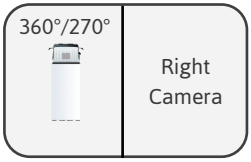
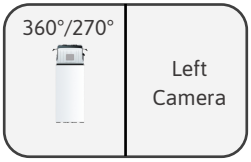
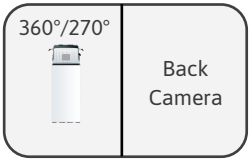



2 : 3

### Switching via trigger




## Vertical Views

### Fixed settings

### Switching via trigger

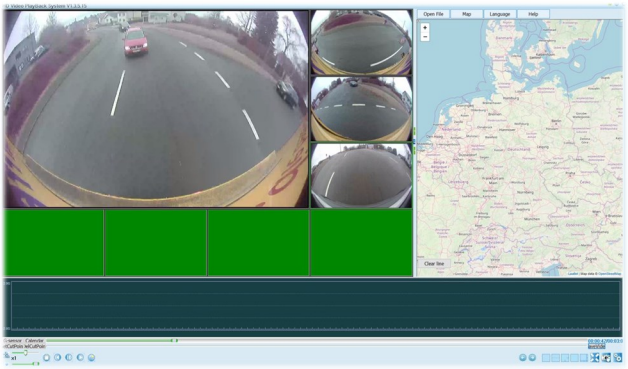
## Calibration

The markers are used to calibrate the system. A space of at least 1.2m is required around the vehicle. For this purpose, the four markers are positioned on the edges of the vehicle and the image is exported from the control unit. With the calibration tool the system can be calibrated within 10 minutes. It is not necessary to measure the distances and vehicle dimensions. The System determines these automatically.

**Required Material**

- Laptop
- Calibration-Software
- Marker 120x120
- USB-Stick

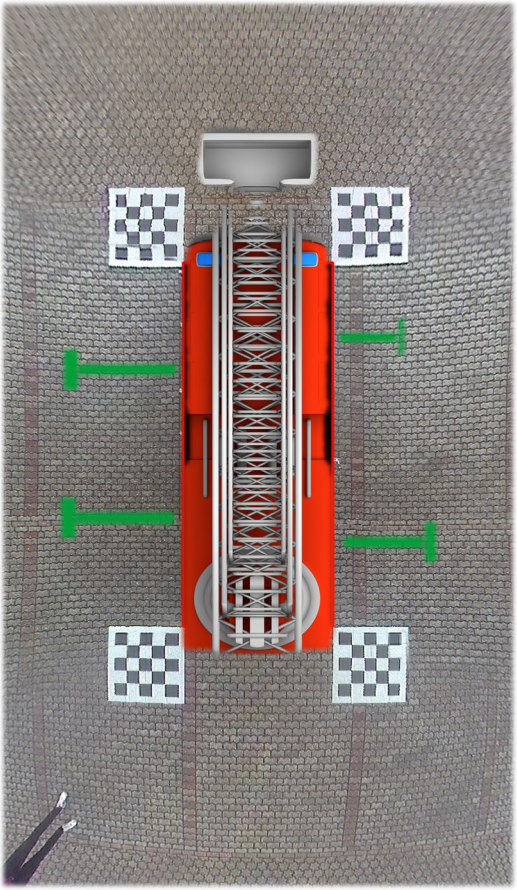
## Video Analysis



The recorded video can be evaluated at any time with the date and time function.

The current location can also be called up using the integrated GPS transmitter.

## Overlays



Our overlays help to manoeuvre and position the vehicle. This prevents, for example, that a support is parked on an unsuitable surface or that an attachment cannot be extended. The overlays can be faded in and out depending on the situation via trigger line.

- Situation-dependent switching of overlays
- Set color via RGB
- Select position & size freely
- View support points
- Protect attachments from collision
- Multiple relocation of the machine avoid
- facilitate processes

**These trigger lines can be freely configured in the menu:**

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- Yellow
- Brown
- White

**The following settings can be made for each Trigger:**

- Show Overlays (Out Rigger View)
- Left Camera
- Right Camera
- Front Camera
- Back Camera
- Quad View
- 360° View

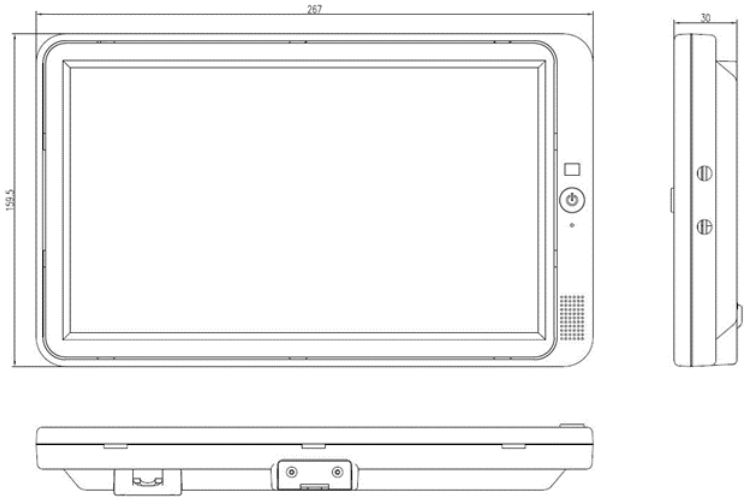
## Monitor

| Description | Article number | Features |
|---|---|---|
| AVS-Monitor 7“ FHD | 3030001 | 3 Video inputs |

## Technical specifications

- **LCD size** 7“
- **Resolution** 1024 x 600
- **Brightness** 600cd/m²
- **Operating temperature** –20°C to +70°C
- **Storage temperature** –30°C to +80°C
- **Contrast** 800:1
- **Power supply** 10...32V DC
- **Power consumption** max. 8W
- **Viewing angle** Up 85°, Down 85°, right/left 85°
- **Dimension** L: 193mm x H: 115mm x B: 30mm
- **Touchdisplay** lockable

## Dimension



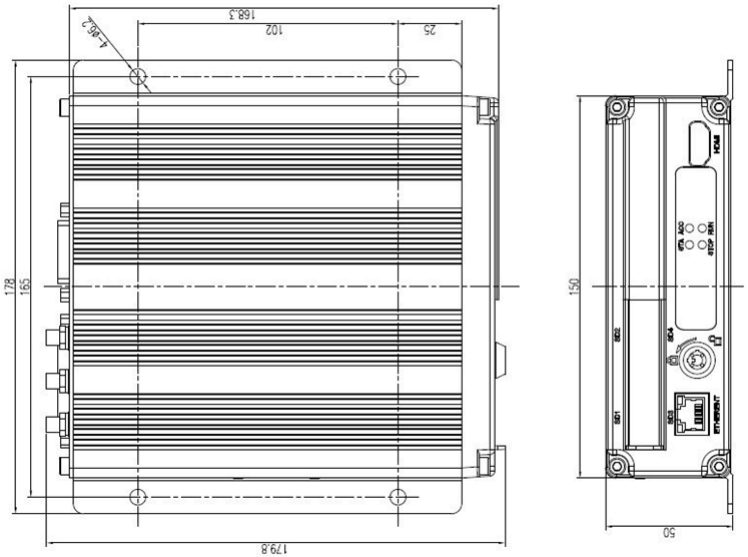
## Control Unit

| Description | Article number | Features |
|---|---|---|
| AVS-ControlUnit Horizontal | 3050001 | Bird View Horizontal |
| AVS-ControlUnit Vertical | 3050002 | Bird View Vertical |

## Technical specifications

- **Video inputs** 4 Channel
- **Video outputs** 1x VGA, 1x AHD, 1x CVBS
- **Resolution** 1920 x 1080
- **Signal Trigger Lines** 4 Inputs, 1 Output
- **Power consumption** ca. 2A
- **Power supply** 8...32V DC
- **Operating temperature** –20°C to +70°C
- **Storage temperature** –20°C to +85°C
- **Storgae** 4 x 125G SD Cards
- **Dimension** L: 180 x H: 50 x B: 178mm

## Dimension



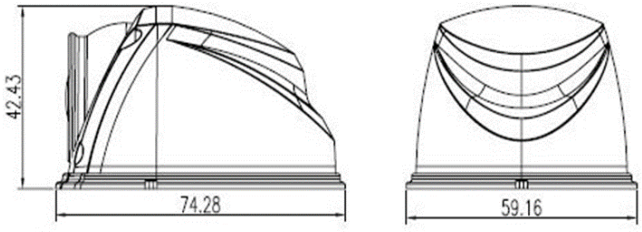
## Camera

| Description | Article number | Features |
|---|---|---|
| AVS-Camera 190° FHD | 3010005 | Viewing angle 190° |

## Technical specifications

- **Resolution** 1920 x 1080
- **Image Sensor** CMOS 1/2.9“
- **Backlight compensation** Automatic
- **Power supply** 12V DC
- **Power consumption** ca. 140mA
- **Viewing angel** 190°
- **Lightning** Day: 0.1 Lux, Night: 0 Lux (with IR 3Meter)
- **Protection class** IP69K
- **Dimension** L: 74,28mm x H: 42,43mm x B: 59,16mm
- **Operating temperature** –20°C to +70°C
- **Storage temperature** –40°C to +85°C

## Dimension



## Optional Products

AVS-Monitor 10“ Quad FHD — 3030003

- HD Resolution
- Quad View
- 4 Camera Inputs

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AVS-Monitor 7“ Quad FHD waterproof — 3030004

- HD Resolution
- Quad View
- 4 Camera Inputs

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AVS-Remote Switch — 3040007

- Switch camera image individually
- Quad View

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AVS-ACC-Wlan — 3040008

- Wlan Antenna
- Control the Bird View Menü

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AVS-ACC-GPS — 3040010

- GPS Antenna

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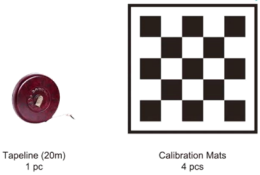


AVS-Calibrationset — 3040001

- 4x Calibration-Marker 120x120
- 1x Measuring tape

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