

AVK51 5" HEAVY DUTY AHD MONITOR 1080P CAMERA KIT

USER MANUAL



AHD

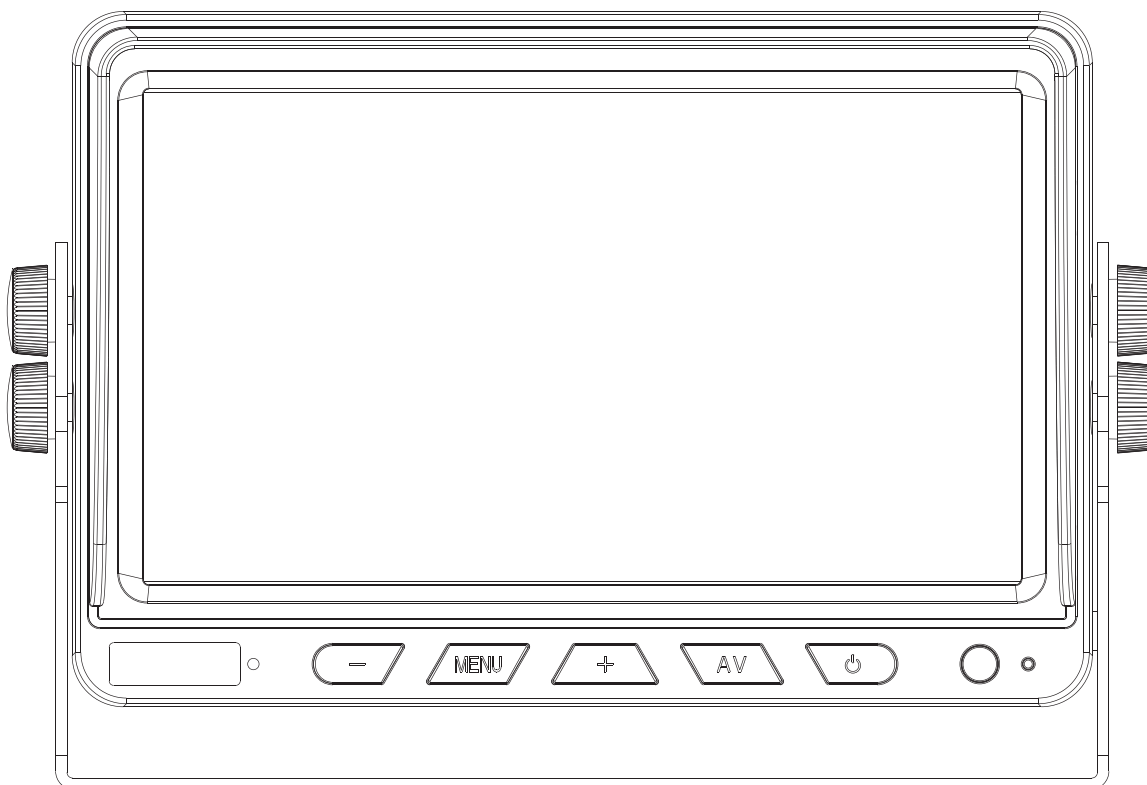
DUAL
CAMERA INPUTS

12/24V
COMPATIBLE



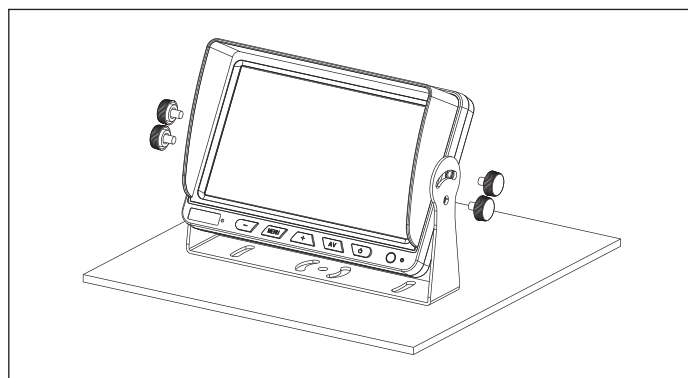
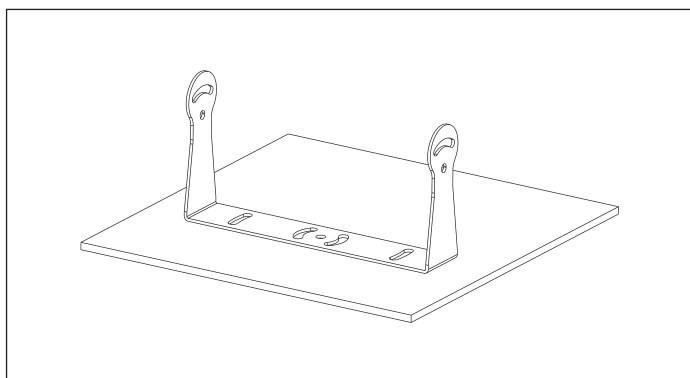
ADVANCED SAFETY **VISION SYSTEMS**

Product overview

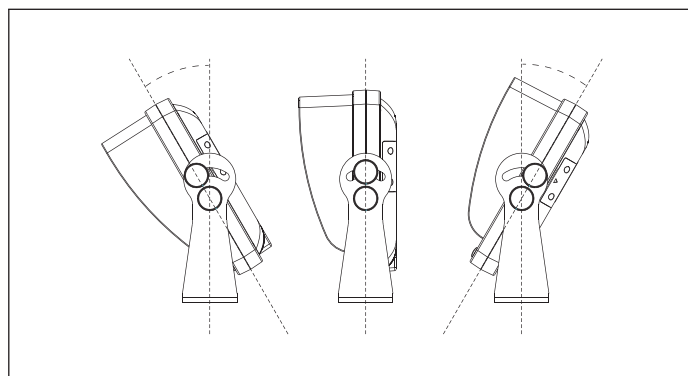
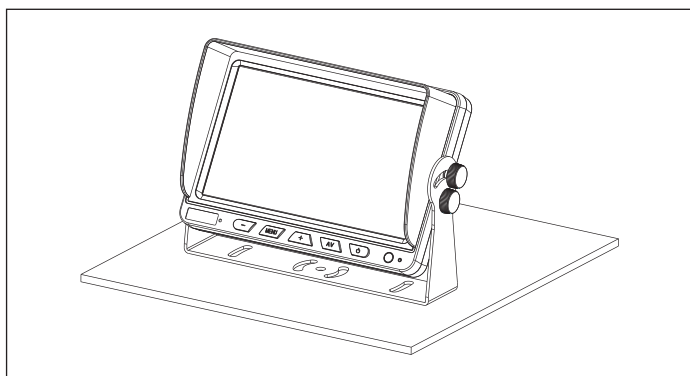


Bracket installation

1. Fix the U-bracket into position. Insert and lock the monitor into the bracket using the mounting screw knobs.



2. Adjust to your desired angle.



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-	- Volume / Menu down function
MENU	Menu
+	- Volume / Menu up function
AV	Input select
⏻	PowerVolume

Menu structure

Press the Menu button to scroll through the main menu structure.

Each press of the menu button will advance the user through the 4 menus as listed below.

Press the AV button to toggle through sub menus.

Press the + or - buttons to change the sub menus.

1. Monitor:

- Brightness - 0-100
- Contrast - 0-100
- Saturation - 0-100
- Auto brightness - ON/OFF
- Reset (restores to factory settings)

2. Guidelines:

- Guide line - ON/OFF
- Cam1 Delay - OFF/1 to 15 seconds
- Cam2 Delay - OFF/1 to 15 seconds

3. Settings:

- Language - Multiple
- Up Down - ON/OFF
- Cam1 Mirror - ON/OFF
- Cam2 Mirror - ON/OFF

4. Volume:

- Volume - 0-40

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Menu descriptions

1. Monitor:

- **Brightness** - Adjusts the brightness of the screen. Be careful not to adjust this setting to high as this will reduce the contrast (blacks will eventually become greys reducing the contrast to whites).
- **Contrast** - Adjust the transitions of highlighted areas to darkest shadows. A higher contrast makes the image appear sharper, but too much contrast will remove subtle details in the mid tones.
- **Saturation** - This adjusts the colour saturation. Higher levels yield more colour, However, too much colour may affect night time performance (may result in a noisy image).
- **Auto brightness** - When activated the monitor will adjust the monitor's brightness automatically based on the current lighting conditions.
- **Reset** - Returns the unit to factory settings.

2. Guidelines

- **Guide line** - Turns the parking guidelines on or off.
- **Cam1 Delay** - This sets the Switch off time after the Trigger is removed for camera 1 input. For example, when the car is in reverse the back up wire of the car triggers the camera to turn on automatically, when the trigger is lost (the car is taken out of reverse) the Image is switched off. The delay allows the camera to stay on a prescribed amount of seconds after the trigger is lost.
- **Cam2 Delay** - This sets the Switch off time after the Trigger is removed for camera 2 input. For example, when the car is in reverse the back up wire of the car triggers the camera to turn on automatically, when the trigger is lost (the car is taken out of reverse) the Image is switched off. The delay allows the camera to stay on a prescribed amount of seconds after the trigger is lost.

3. Settings

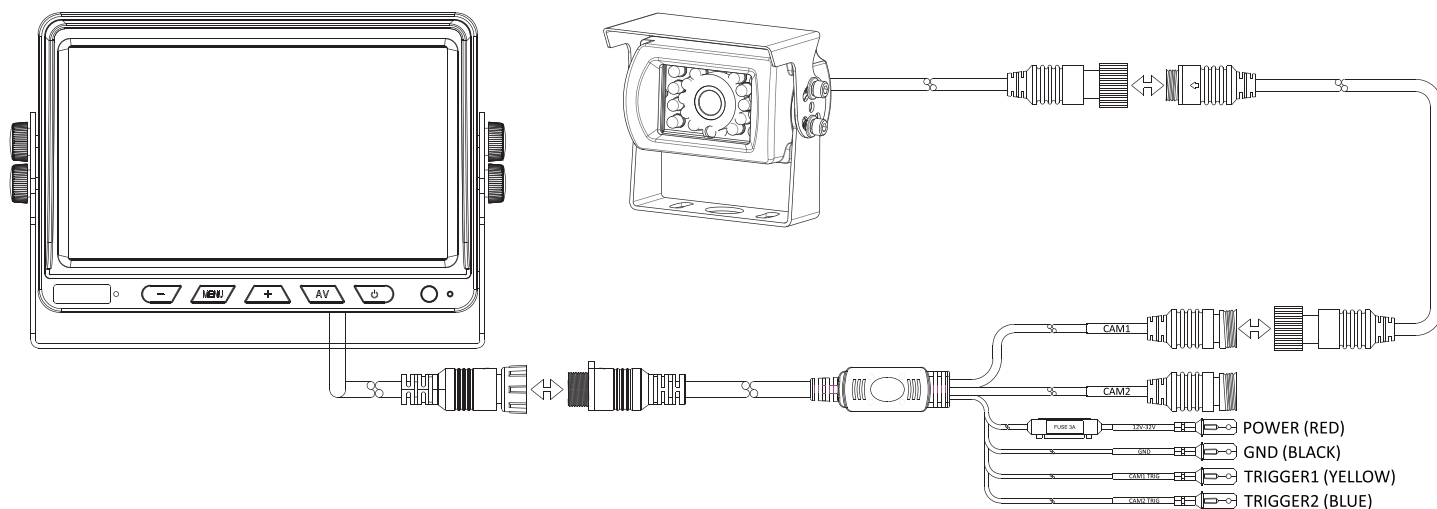
- **Language** - There are 6 different language settings to choose from
- **Up Down** - Changes the monitor display direction 180 degrees.
- **Cam1 Mirror/Cam2 Mirror** - Depending on the direction of the camera and the orientation of the camera head, you may wish to change the orientation of the image for each camera. An example of this function would be in the event you have a forward facing camera and a rear facing camera. One of these images is best viewed as a mirror image (the rear view) and the other as a normal view (the front facing camera) another situation that may need to be addressed is a camera that is hung upside down.

4. Volume

- **Volume** - You can pre-set the volume level

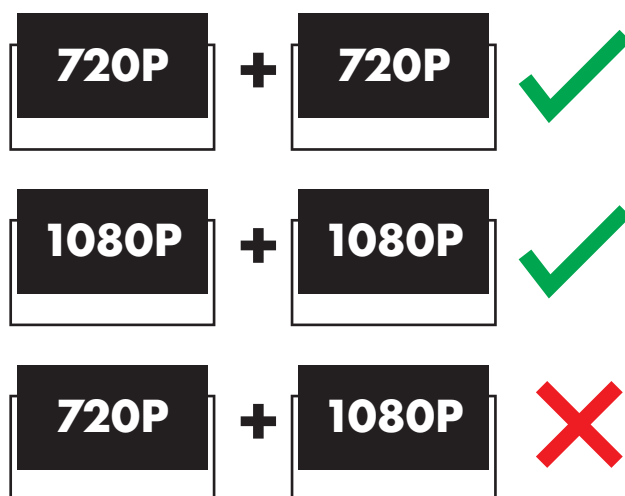
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Camera installation



Matching Cameras (sold separately)

Note: When purchasing Additional cameras, the resolutions must be matching



Note: Additional cameras and wiring may be required depending on your application, compatible products are available on our website. For more information Scan the QR code below.

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Product
information
and user
manual.

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How to find reversing wires to trigger or power camera systems.

We recommend that you wire up the triggers as the last part of your installation (after the systems monitor has been wired) this is so that you can use the system as a safe way to test for a reversing wire.

Back up camera systems (reversing camera systems) require a signal to “Trigger” the system into action so that it automatically operates when the vehicle is in reverse.

Whilst some systems are designed to allow cameras to operate even when the vehicle is not in reverse it is still necessary to wire a trigger system in so that the Camera that is facing backward automatically turns and or takes over as priority when in the vehicle is in reverse. When wired in correctly using the right trigger priority, the system can also automatically turn on the rear camera of an attached trailer taking priority over the vehicles back up camera when the trailer is connected.

The most common way to trigger the rear facing camera is to use the + wire that powers one of the vehicles reversing globes at the back of the vehicle.

NOTE: Some vehicles that Use CAN bus to operate rear lighting systems may require additional parts to trigger the system.

Caution: Never test for reversing wires standing at the back of the vehicle, with the engine running and the gearbox in reverse gear. If the car/truck can not be placed in reverse without the engine running, Special procedures should be employed. In this case we highly recommend you seek a professional installer to do this type of work. Failure to follow proper procedure could cause serious injury or death. (The vehicle could back over you)

Step 1.

Place the car in reverse, with ignition on but the car not running (do not leave the cars ignition on for long periods of time without starting it) observe or have an observer notice which light turns on and its location in the lens. Turn the ignition off. Then, locate the globe socket that holds the reversing globe into the lens. In some cases the Lens has to be removed from the car to expose the socket. In most cases however, you can gain access from the inside of the car behind a removable interior wall/panel.

Step 2.

Identify which wire is the globes ground and which is positive. Light globes have very low resistance so if a globe is in place, both wires will show up as a ground. Even if you remove the globe the second globe on the other side of the vehicle will still give the positive side a short path to ground and may still be indistinguishable from the globes earth. For this reason it is necessary to energize the globe to find out which side is positive and which side is negative. Using a multimeter set to DC volts (make sure that it is on the correct scale) attach the negative probe to one of the globes wires and the positive probe to the other (in most cases you can push the probe ends into the back of the globe socket) if not, you may have to

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carefully strip both wires sheaths back to expose the wires core making sure you keep them separate and away from the cars chassis to avoid any shorts). You should also make sure the globe it self is not resting on something that could be harmed by extreme heat as the globe when on can get very hot). Turn the ignition back on again with the cars gear set to reverse (without the engine running). The globe should illuminate and the multimeter will show a positive voltage or a negative voltage across the globe. By noting whether the voltage is positive or negative you can define which wire is positive or negative. If the reading is positive then the probes positive is connected to the positive wire. If it's a negative reading then the multimeter's negative probe is connected to the positive wire of the globe as a final check, take the vehicle out of reverse with the ignition still on and check that the voltage is now zero.

If the vehicle can not be placed in reverse without the engine running the following procedure should be used. With the car off, remove the globe. Set your multimeter to resistance on the lowest setting. Place one probe on a part of the chassis that is ground (most rear tail light assemblies have a small grounding screw close by). If you can not find one look for some exposed chassis (like a tailgate hinge etc). Measure the resistance to ground of both wires in the back of the globe socket (with the globe out) whist the resistance will be very similar (because of the other globe still in the circuit) one wire will have a slightly higher resistance. The one with the highest resistance should be the positive wire.

Connect the system to this wire and then use the reversing system to test if it is triggering. With no one at the rear of the vehicle. Start the car. Make sure the reversing systems monitor is in the off state and then place the vehicle in reverse. If you have found the correct wire the system will automatically turn on from its off state. If you have connected the trigger to the globes earth no harm is caused but the system will not trigger. In that case simply connect it to the alternate wire and repeat.

CAN BUS

In the event that the cars reversing lights are driven by CAN BUS the above wiring system may not trigger the system correctly. It may even create a globe fault warning. In this case a CAN BUS module (sold separately) may need to be installed. However, just because the vehicle has a CAN BUS system does not necessarily mean that it will require such a module to work. In fact the opposite is true. Most vehicles do not require an additional module. If a CAN BUS module is required we recommend seeking advice from a professional installer.

Multi trigger systems. Please refer to the diagram provided with trailer trigger systems. Pay special attention to the AV camera numbers and trigger numbers. It is important that the AV camera numbers match the diagrams placement in order to provide the correct priorities so that when a trailer is connected it takes rear view priority over the vehicles rear view camera and so that when no trailer is connected the vehicles rear camera operates automatically.

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Specifications

- Display: 5" LCD Display
- Resolution:
 - Monitor: 800x480
 - Camera: 1080P
- Lens Angle: 110 Degrees
- Wired or Wireless: Wired
- Compatibility: Suits Standard Definition and AHD (720p and 1080p)
- DVR Recording: No
- Video System: PAL/NTSC Auto
- Video Inputs: 2
- Video Triggers: 2
- Display Modes: Single Only
- Monitor View: Normal / Reverse
- Guidelines: Selectable On/Off (CAM 2 Only)
- Audio: On board Speaker
- Luminance: 450cd/M2
- Power Supply: 10-32V (Hardwired)
- Dimensions (WxHxD):
 - Monitor Only: 133 x 95 x 22mm
 - Monitor and Bracket: 152 x 110 x 31mm
 - Camera: 76 x 49 x 66mm
 - Camera and Bracket: 86 x 68 x 66mm
- Inclusions:
 - 5" AHD Monitor (AVM5)
 - 1 x 1080P AHD Camera (AVC3)
 - 1 x Monitor Mount
 - 1 x Sun visor
 - 1 x 1.5m Monitor Cable
 - 1 x 10m Camera cable (AVEC10)
 - Mounting fittings

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Technical assistance

If you need assistance setting up or using your Aerpro product now or in the future, call Aerpro Support. Australia

TEL: 03 – 8587 8898

FAX: 03 – 8587 8866 Mon-Fri 9am – 5pm AEST or EMAIL: service@tdj.com.au

If you would like to download a digital copy of this manual, or other Aerpro manuals/software, please visit the Aerpro.com website and search for the product model number for more information, accessories and products.

This manual is considered correct at time of printing but is subject to change.

For latest manuals and updates refer to the website.

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