GATOR

Model: ARV50T

USER MANUAL

5" REAR VIEW MONITOR+
REVERSING CAMERAS
For caravans/Trucks/trailers

PRO LINK II

NIGHT VISION Camera

PARTS INCLUDED

Thank you for purchasing the GATOR Driver Asist ARV50T Reverse
View Camera and Trailer Kit.

Monitor

Camera

Remote

Bracket

Camera 2

4pin screw AV Cable

Extension Cable

Test Harness

Suction mount

Wiring Harness

Weather Proof Connector Rear of Car Side
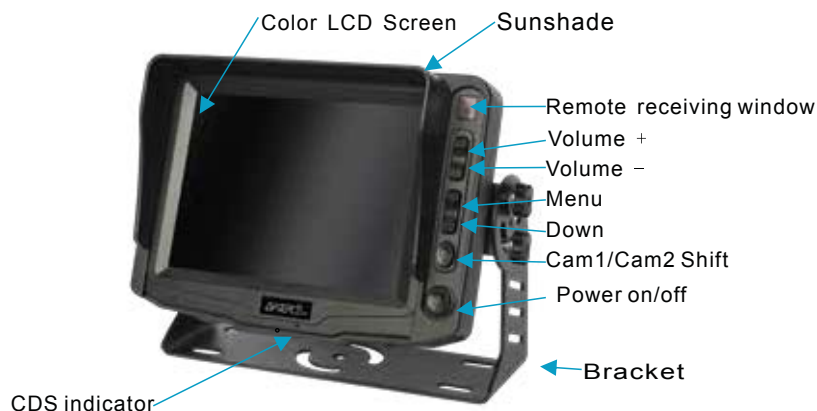
Interconnector

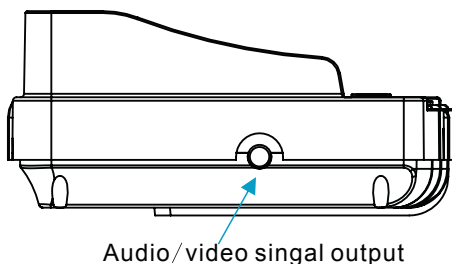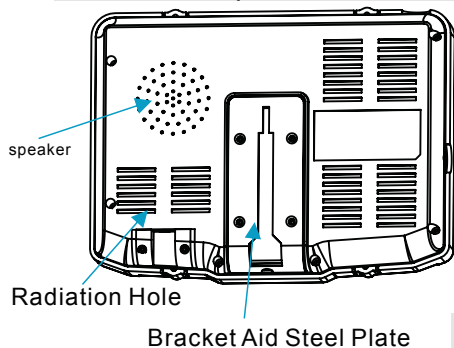Weather Proof Connector Trailer Side

NOTE
We suggest that this system be installed by a professional installer or a person
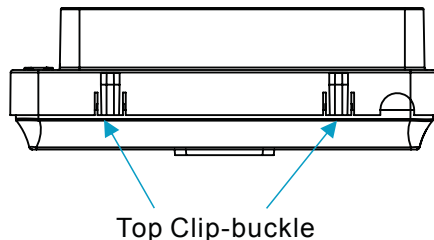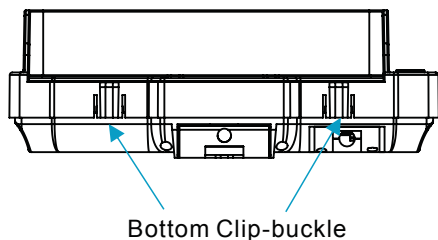with a fair level of mechanical and electrical knowledge

MONITOR DETAILS:

Color LCD Screen

Sunshade

Remote receiving window

Volume +

Volume −

Menu

Down

Cam1/Cam2 Shift

Power on/off

Bracket

CDS indicator

Brightness inductive component is embedded, please do not block the hole.

speaker

Radiation Hole
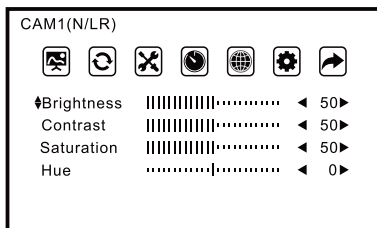
Bracket Aid Steel Plate

Audio / video singal output

Insert the AV connector into the output jack, the video will be transferred to the other monitor, and at this moment the monitor has no audio input.
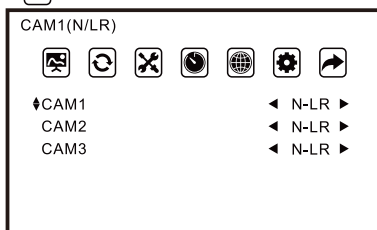
Bottom Clip-buckle

Top Clip-buckle

:3:

MENU OPERATION:

1. Picture: 🖼️

CAM1(N/LR)

🖼️ 🔄 🔧 🕐 🌐 ⚙️ ➡️

|		
Brightness	|||||||||||··········	◄ 50►
Contrast	|||||||||||··········	◄ 50►
Saturation	|||||||||||··········	◄ 50►
Hue	···········|··········	◄ 0►

The default value of Brightness, contrast and saturation is 50, NTSC Hue is 0.
The Brightness, contrast and saturation value is between 0-100, the Hue value is between -50~ +50.
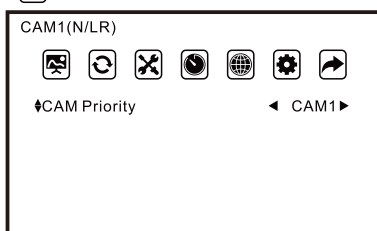
2. Channel reverse set up: 🔄

CAM1(N/LR)

🖼️ 🔄 🔧 🕐 🌐 ⚙️ ➡️

CAM1	◄ N-LR ►
CAM2	◄ N-LR ►
CAM3	◄ N-LR ►

The default picture mode is normal(N-LR), each channel can set four reverse modes separately: N-LR(normal image)/M-LR(mirror image)/M-UD(mirror upside-down image)/ N-UD(normal upside-down image).

CAM1(N-LR)   CAM1(M-LR)   (CAM1(N-UD))   (CAM1(M-UD))
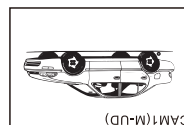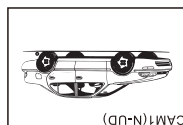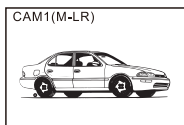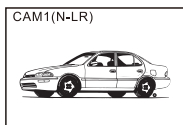
3. Reverse priority set up: 🔧

CAM1(N/LR)

🖼️ 🔄 🔧 🕐 🌐 ⚙️ ➡️

CAM Priority	◄ CAM1►

The default reverse channel is CAM1, the priority is: CAM1>CAM2>CAM3, press ◄ and ► to change the priority between CAM1 and CAM2.
When CH PRIORITY is CAM2, the priority is CAM2>CAM1>CAM3.
When CH PRIORITY is CAM3, the priority is CAM3>CAM1>CAM2.

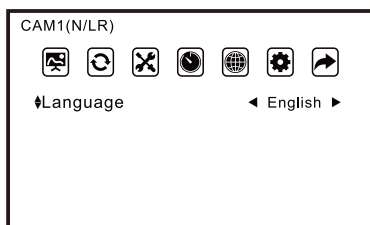Note: The Keys can not work when the system is in reverse.

:4:

MENU OPERATION:

4. T-DELAY set up ⏱

CAM1(N/LR)

CAM1 ◄ 0S►
CAM2 ◄ 0S►
CAM3 ◄ 0S►
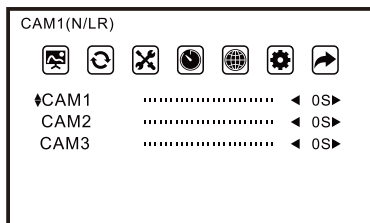
Default delay time in each CH is 0S, you can set the delay time after the trigger stop, the delay time can be: 0S，5S，10S，15S，20S，25S，30S。
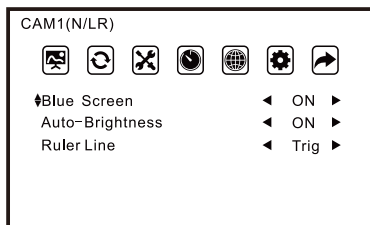
Note： The keys can not work during the delay time．

5. Language 🌐

CAM1(N/LR)

Language ◄ English ►

The default language is English, 11 languages for option: English, Chinese, French, Deutsch, Italian, Spanish, Portuguese, Russian, Danish, Polish, Dutch.

6. System Setting: ⚙

CAM1(N/LR)

Blue Screen ◄ ON ►
Auto-Brightness ◄ ON ►
Ruler Line ◄ Trig ►

Blue Screen ON: Blue screen when no signal; OFF: Black screen when no signal.

Auto-Brightness:
ON: CDS sensor test the ambient light, if less than 10Lux, the screen brightness will be decrease automatically, and the key backlit(blue) turn on.
OFF: CDS sensor not work, always show the menu setting image, key backlit not work.

Ruler Ref Line mode:
ON   ：The line always show in the single Channel image .
Trig   ：Only show when the single Channel is triggered.
OFF   ：No ref. line.

The ref. line works only when there is a video signal input, not work if no signal or in multi-image display mode.

Note: Click EXIT ➡ to save the setting

:5:

REMOTE CONTOL DETAILS:

Mute — MUTE

Up

VOL -

Picture Mode — MODE

Language — LANG

Flip horizontal

POWER — Power switch

VOL +

Menu — MENU

Down

Call — CALL

Timer — SLEEP

CAM1/2 shift — AV1/AV2

Calendar — CALE

Flip vertical
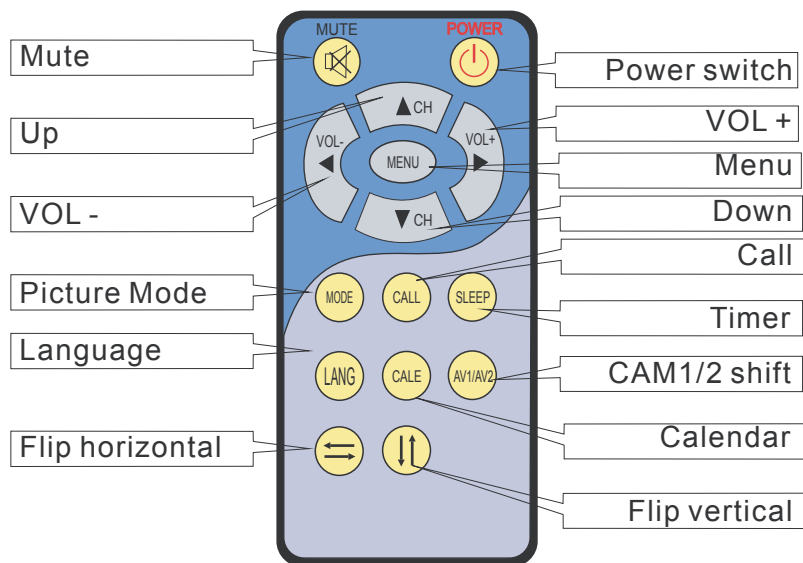
Battery of the Remote Controller

Please change the battery as the following picture showing:

② Puller　① Enter
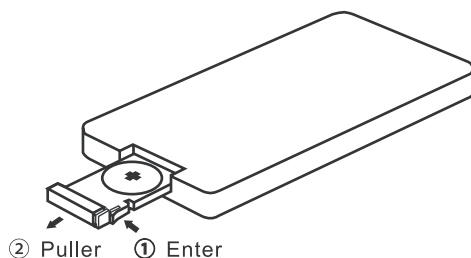
Using the push button (CR2025)

:6:

SYSTEM CONNECTION:

The ARV50T is supplied with 2 cameras, extension cables and a trailer adapter. This allows the user to have a complete rear reversing system for any hitched vehcles such as boat trailers, caravans, horse floats, handyman trailers etc.

People Movers

Vans (open cabin)

Sedans

Wagons

Buses

Car & Boat

Horse Float

Car Trailer

4WD & CARAVAN

SYSTEM CONNECTION:

This Kit allows for
3 cameras to be used

5" MONITOR

Caravan/Trailer
Connection Kit
Incuded

10 metres Extension

Rear View
Camera
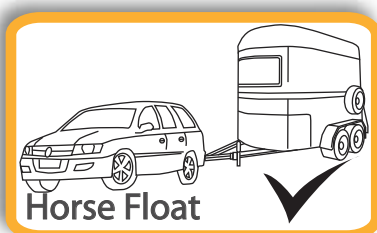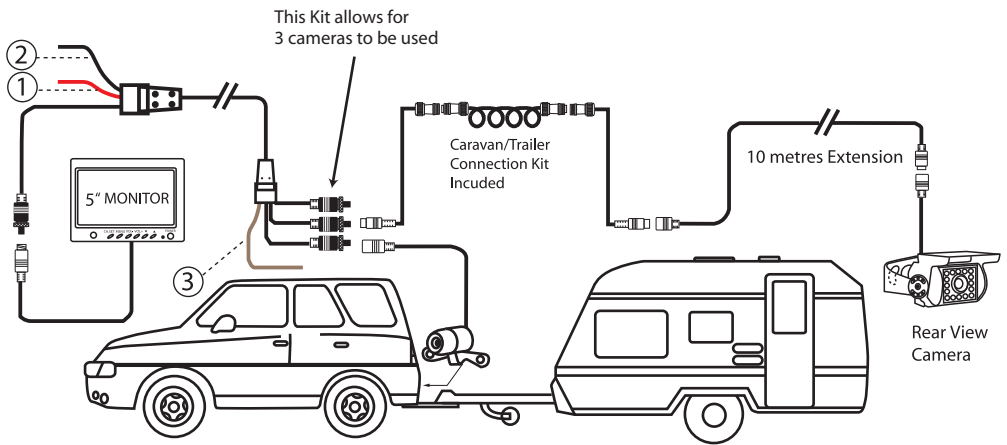
**FOUR WHEEL DRIVE & CARAVAN INSTALLTION
(INCLUDES ANY KIND OF HITCHED TRAILER)**

1.   12~24V+ ACCESSORY WIRE
2.   CHASSIS GROUND
3.   TO REVERSE LIGHT+ OF VEHICLE

INSTALLATION GUIDE:

These installation instructions do not apply to all vehicles. They are meant only as a general guide due to the large number of variation amongst all vehicle makes and models. For vehicle specific questions, contact your vehicle's manufacturer.

Step 1.
Positioning and Installing the Monitor

When choosing a location to mount the monitor, make sure the monitor is mounted in an area that will not obstruct your vision while driving or interfere with the safe operation of your vehicle. Be sure to mount the system well away from Airbags including the area in which they are likely to inflate in the event of an accident.

Option 1

Using the suction mounting bracket

* Slide the flat end of the suction bracket into the slot behind the monitor as shown in the diagram on the right.
* Choose a location to the right or left of your windscreen just above your dash where you can view the monitor but at the same time not obscure your forward view of the road.
* Press the suction pad hard against the windscreen and press down the lever to lock it in place.
* Adjust the flexible gooseneck so that the monitor is in a good viewing position and that the bottom of the monitor rests on the dash.
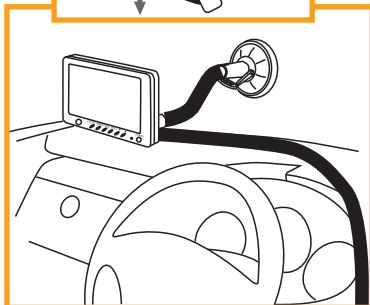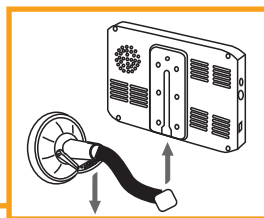
Option 2

In the event that you need additional security, the base of the mount can be fixed to a surface using self-tapping screws. However, before going for this option, first establish wether the surface is suitable for this type of fixing. If the dash is made of foam for instance, it may not be suitable. A dash made of plastic or sheet metal on the other hand is more than likely OK.

The monitor does not necessarily need to be mounted in the location as indicated in the illustration. It can be mounted in a location that best suits the user as long as the safety precautions are observed.

5" MONITOR
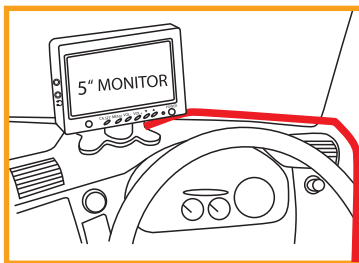
Step 2. INSTALLING THE TOW VEHICLE CAMERA

The camera is best mounted above the vehicles license plate. In some instances this may not always be possible and you may have to mount the camera in another location as in Fig. 4 (below the license plate) or as shown in position in Fig.3 (attached to the under side of the bumper bar just above the license plate. When mounting the camera make sure that the camera does not cover any part of the license plate. When selecting a suitable mounting location, make sure you choose a position that does not impede the access / operation of the vehicle's boot or tailgate latch.

1. When mounting the camera above or below the license place, you must first remove the rear license plate from the vehicle by undoing the bolts /screws.
2. If possible, mount the camera slightly above or below where the licence plate is located so that the winged mounting bracket holes are below the edge of the plate and fasten it with two metal self tapping screws. With the licence plate off, check if there are pre-existing holes through which the cables from the camera can be passed into the boot of the vehicle.
3. If there are no pre-existing holes drill a hole of sufficient diameter to allow the cables to be passed into the interior of the vehicle through a rubber grommet and seal the hole with silicone to avoid water leakage. Run the cable as close as possible to the location of the tail light wiring system.
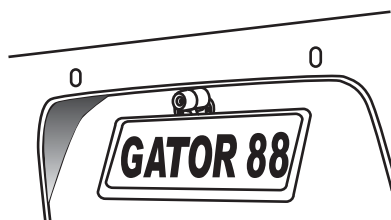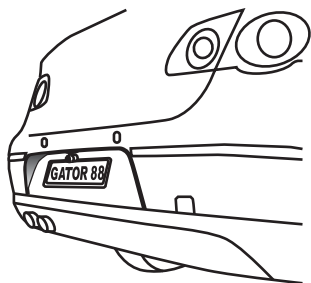
Fig.2
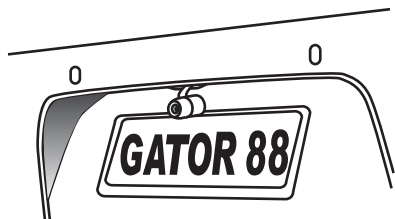
Fig.3

Fig. 4

INSTALLATION GUIDE:

INSTALLING THE TRAILER EXTENSION CABLE

The trailer extension cable will now have to be installed at the rear of the vehicle to allow for easy connection to the trailed vehicle preferably in the locations shown in the diagram below. The othe end of the trailer extension plug needs to pass through into the interior of the vehicle via 15 mm hole and a suitable sized rubber grommet if the trailer adapter is mounted on the tow bar (option 2)

REAR EXTENSION MOUNTING

Mounting Position:
As Close To The Ball
And Tongue
As Possible
or
Near Number Plate

Option 1

OR

Option 2

**Postition Will Vary
Depending On
Vehicle**
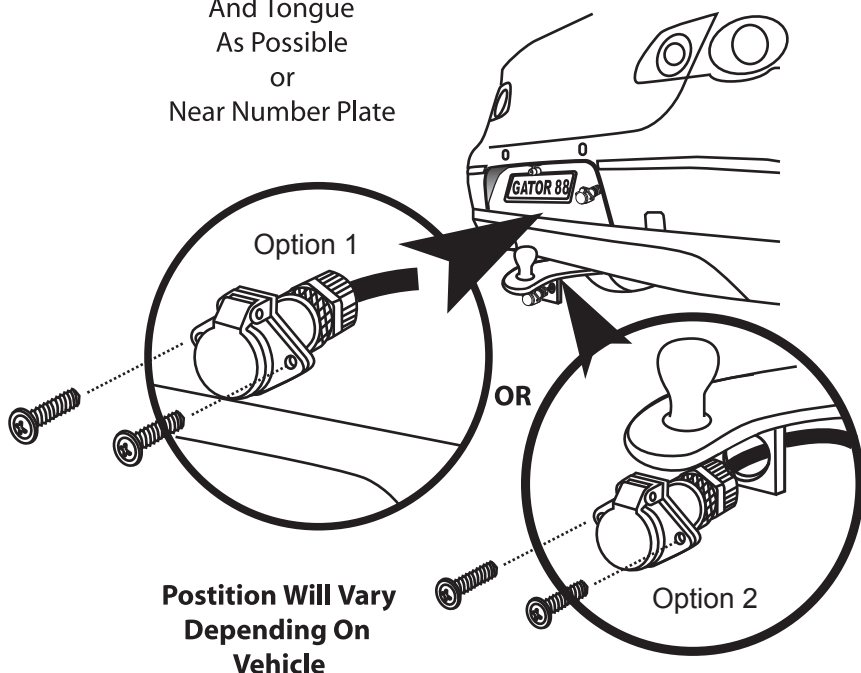
INSTALLATION GUIDE:

Step 3.
INSTALLING THE MAIN WIRING HARNESS

Note: Before you connect power to the monitor harness. For electrical safety, make sure that the harness is un-plugged from the monitor whilst you connect up the power wiring. After you have connected the power wires you can then re-connect the harness to the Monitor.

1) Neatly run the monitor harness (main wiring harness) from the monitor's mounting position to the area under the driver side dash panel, or to the driver's sidekick trim panel area. (this area is usually the most likely place to find the fuse box or a suitable accessory power wire that you will need). The monitor end is the one with a single connector.

2) About 1 Meter from the start of the cable is a RED Power wire and a BLACK Earth wire. The RED wire must be connected to a power source that is energised only when the accessory power is on (not constant power). This ensures that the system does not operate when the vehicle is off (which would drain the car's battery). You can find an accessory power wire from the fuse box if it is located near by. Alternatively you can use a test light to find an accessory wire leading to the key barrel and splice in.

3) The BLACK wire should be connected to earth. To attach the earth wire, first find a metal panel somewhere near, or on the metal plate behind the kick trim that is clear of electronics and wires behind the panel. Drill a small 1/8th Hole in the panel, attach an "O" ring terminal to the end of the Black wire, then secure the wire to the chassis using a suitable self-tapping screw (for a better earth connection you may wish to scrape away/remove the paint around the hole before attaching the earth).

4) Continue running the cable all the way to the rear of the vehicle to where the camera's harness is located. For cab chassis vehicles, you'll need to thread the harness out of the cab area somewhere behind the driver's seat. When doing so, ensure that you use a suitable grommet and seal any holes with sealant to avoid any water leakage.
For passenger vehicles the best route is to run the cable down the driver's side of the vehicle tucked under the sides of the interior carpet. To do this, you will need to remove the front and rear door scuff plates and any other trim panels that obstruct access to the edge of the carpet, such as pinch weld rubbers etc. Once the harness is run to the back seat area you may need to remove the back seat, including the backrest, to run the cables from the passenger area to the boot area of the vehicle (removal of back seat is dependent on vehicle type and design of the vehicle).

INSTALLATION GUIDE:

5) Once the cable is in the boot area, run it to the location where the camera and the trailer harness is located near the tail light wiring. You will more than likely need to remove boot trims, so that the wires can be neatly concealed behind these panels. However in some cases you can bend these panels at the sides after removing pinch weld rubbers etc., and simply tuck them behind the panels without removing them completely.

6) For longer vehicles the cable can be extended using an optional Prolink extension cable according to the length that is needed (PLC3-3 metres, PLC7-7 metres and PLC12-12 metres). If you choose this option you will also need to extend the colour wire for the appropriate camera input of the same gauge. When using the extension cable connect it to the CAM2 connector at the end of the main wiring harness.

7) Now that the power is connected to the main wiring harness connect it to the monitor cable.

8) At the back of the vehicle, where the reverse light wiring is located, connect the correct colour wire to match correct colour camera input to (+) Back up power (the wire that supplies power to the reversing light globe and is energised only when the car is put into reverse). Use a suitable splicing/crimp connector (Scotch Lock type) or strip back the insulation and solder the connection. Ensure that you insulate the connection with insulation tape or heat shrink tube after you have finished to avoid short circuits.
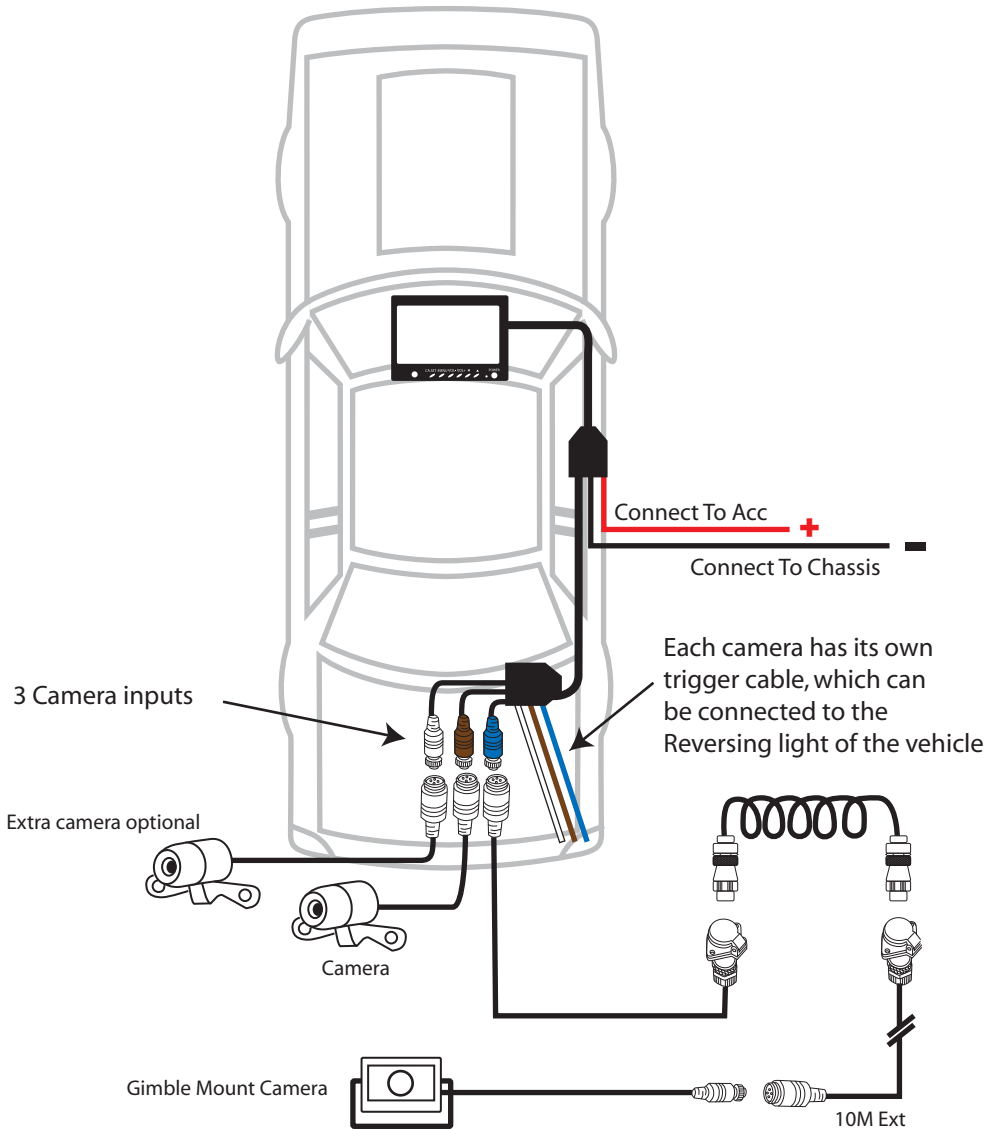
The colour wire is used to tell the system that the vehicle is in reverse so that it can auto switch to the reversing image. However, if the vehicle is not in reverse, the operator can switch this image on manually if desired.

9) Connect the camera cable from the camera to the CAM2 connector at the end of the main wiring harness. In the event you are using the extension cable, this will be the end of the extension cable. Make sure you connect the camera harness to CAM2 (CAM2 is the auto switch channel that engages when the vehicle is put into reverse. CAM1 only operates manually).

NOTE: Make sure that you do not drill holes in panels that have an opposite face that is visible outside of the car eg. guard panels. In fact, whenever drilling holes in the bodywork of a vehicle, always see what's on the other side.
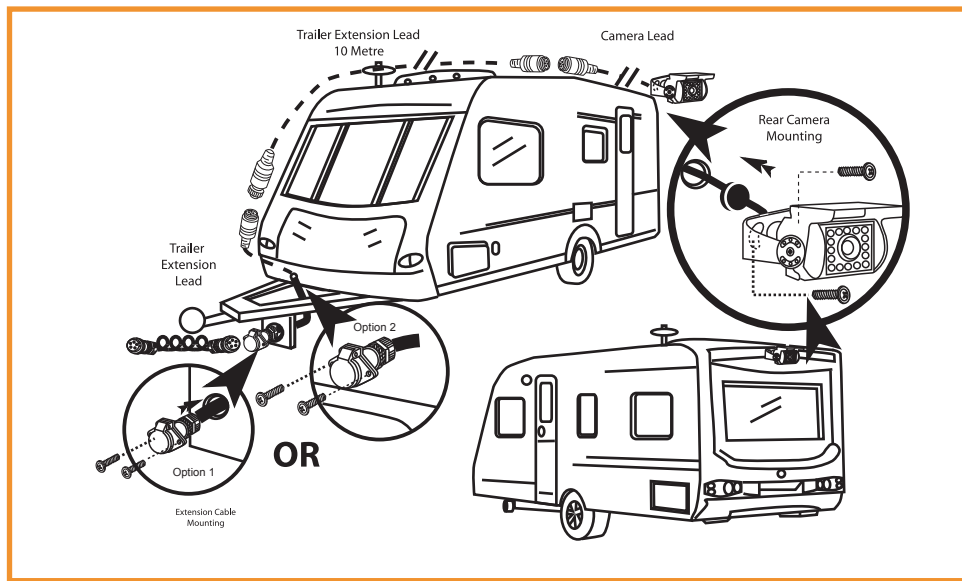
INSTALLATION GUIDE:

Connect To Acc

Connect To Chassis

3 Camera inputs

Each camera has its own trigger cable, which can be connected to the Reversing light of the vehicle

Extra camera optional

Camera

Gimble Mount Camera

10M Ext

:14:

INSTALLATION GUIDE:

Trailer Extension Lead
10 Metre

Camera Lead

Rear Camera
Mounting

Trailer
Extension
Lead

Option 2

OR

Option 1

Extension Cable
Mounting

Step 4

Installing the camera and trailer adapter cable in the trailed vehicle

INSTALLING THE TRAILER ADAPTER

1) Install the trailer adapter cable in either of the positions as shown in the diagram
2) For option 1 drill a 23mm hole with a hole saw close to the yoke of the towed vehicle. Through this hole pass the 4 pin plug of the trailer extension cable into the trailed vehicle and secure the large 5 pin plug to the front wall of the trailer with two metal self tapping screws as shown.
3) For option 2 mount the 5 pin trailer adapter plug and pass the smaller 4 pin plug into the trailer/caravan via a 15mm hole and suitable sized rubber grommet.

INSTALLING THE CAMERA

1) At the top of the trailer select a suitable place and mount the rear view camera as shown
2. Drill a 15 mm hole as close as possible behind the camera and pass the camera lead and 4 pin plug into the caravan/trailer via a suitable sized rubber grommet
3. Now connect the 10 metre exention lead between the camera and trailer extension lead. Your trailer is now ready to be hitched to the main driving vehicle.
4. After hitching the trailer use the spiral trailer coupling lead to connect both vehicles.

TESTING THE SYSTEM:

TESTING THE REVERSE CAMERA SYSTEM

1. Engage the park brake and turn the ignition key to the ON position. DO NOT start the vehicle.

2. Select the reverse gear with the gear shift. The camera should broadcasting the image of the view behind the vehicle.
3. to test both cameras, take the vehicle out of reverse gear. Press the POWER ON button, then press the CA SET button. The image will cycle from Camera 19CAM1) to Camera 2 (CAM2) each time the button is pressed.

4. Using the supplied Remote control you can set the rear view priority camera. This means that you can set Camera 1 or Camera 2 to automatically turn on when the Vehicle is in reverse mode.

NOTE: The monitor will always revert to the rear view camera whenever the car is put into reverse gear.

:16:

USER NOTICE

- Please pay particular attention when mounting the various components
- If unsure please use a professional tradesperson
- Disconnect the battery before starting the installation
- Although this system aids car reversing, it is mandatory that the rear view mirror should not be removed from the vehicle
- Please check the system thoroughly before driving vehicle.

SPECIFICATIONS:

5 inch Colour TFT-LCD Monitor
3xVideo inputs
Display Resolution: 640 RGB(H) X 480 (V)
Wide view angle(CR>10):(up/ down): 50/70 (left/right): 70/70
Brightness (cd/m^2): 300
Contrast ratio: 500:1
Color system: PAL/NTSC
Response time less than 2" when reversing
3 image switch automatically, shift time 0-30"
Auto mirror image video when reversing
Operating temperature: -20° to +70°
Storage temperature: -30° to +80°
Power consumption:DC11~32V
External dimensions:LxWxH(152X110X23)mm

CAM1:
1/3"Colour CCD Bracket mount
High colour and definition
Viewing angle : 120 Degrees
S/N Ratio: More than 48dB
Power Consumption: 2W
Water Resistance: IP69K

CAM2:
1/3"Colour CMOS Butterfly Bracket mount
High colour and definition
Viewing angle : 120 Degrees
S/N Ratio: More than 48dB
Power Consumption: 0.5W
Water Resistance: IP66

TECHNICAL ASSISTANCE:

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

TEL: 03 – 8587 8898

FAX: 03 – 8587 8866

Mon-Fri 9am – 5pm AEST

Please retain this user guide for future reference.

If you would like to download a digital copy of this manual, or other Gator manuals/software, please visit the TDJ.com.au website and click 'Help/Downloads' for information on where to find the manuals/software.

:17:

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3 image switch automatically, shift time 0-30"
Auto mirror image video when reversing
Operating temperature: -20° to +70°
Storage temperature: -30° to +80°
Power consumption:DC11~32V
External dimensions:LxWxH(152X110X23)mm

CAM1:
1/3"Colour CCD Bracket mount
High colour and definition
Viewing angle : 120 Degrees
S/N Ratio: More than 48dB
Power Consumption: 2W
Water Resistance: IP69K

CAM2:
1/3"Colour CMOS Butterfly Bracket mount
High colour and definition
Viewing angle : 120 Degrees
S/N Ratio: More than 48dB
Power Consumption: 0.5W
Water Resistance: IP66

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