# Rear View Camera System

7 Inch Waterproof Monitor System





**INSTRUCTION MANUAL** 

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#### Instruction



Please read all of the installation instructions carefully before installing the product. Improper installation will void manufacturer's warranty.

Congratulations on purchasing a RearView Backup Camera System! With this manual you will be able to properly install and operate the unit.

The Backup Camera System is intended to be installed as a supplement aid to your standard rear view mirror that already exists in your vehicle. The Backup Camera System should not be used as a substitute for the standard rear view mirror or for any other mirror that exists in your vehicle.

In some jurisdictions, it is unlawful for a person to drive a motor vehicle equipped with a TV viewer or screen located forward of the back of the driver's seat or in any location that is visible, directly or indirectly, to the driver while operating the vehicle.

## Before Beginning Installation

Before drilling please check that no cable or wiring is on the other side of the wall. Please clamp all wires securely to reduce the possibility of them being damaged while vehicle is in use. Keep all cables away from hot or moving parts and electrical noisy components.

We recommend doing a benchmark test before installation to insure that all components are working properly.

Step 1: Choose the monitor and camera locations.

Step 2: Install all cables in vehicle, when necessary a 0.8 (20mm) hole should be drilled for passing camera cable through vehicles walls. Install split grommets where applicable.

Step 3: Once all cables and wiring have been properly routed, perform a system function test by temporarily connecting the system. If the system seems to not be operating properly see trouble shooting (page 16).

#### Installation Guide



#### Cable

- 1. Be sure to position the cable properly. The camera cable uses aircraft grade connectors which means the camera cable can be exposed to all weather elements. Do not run the cable over sharp edges, do not kink the cable and keep away from HOT and rotating parts.
- 2. Fasten all cables and secure all excess cable.

#### Monitor

- To attach the pedestal mount to the dashboard or to the headliner use self-tapping screws and/or the adhesive pad.
- Attach monitor to mount, and adjust mounting angle to allow optimum driver viewing comfort. (see figure 1.1 on page 8)

#### Installation Guide



#### The Power Harness.

- To power the system connect the power (RED) 12V+ wire to ignition power and the ground
   (BLACK) wire to chassis ground.
- These are the only wires needed to power the entire system and all the cameras.
   Each camera can be seen at any time by simply pressing the power button and using the V1/2 button to toggle.
- The three positive trigger wires (WHITE-CH1, BR0WNCH2, BLUE-CH3) each represent one channel and will turn on their channel when the trigger wire is energized with 12V.
- "Camera 3" is the designated backup channel. To have the the backup camera come on when you go into reverse, connect the BLUE wire to reverse power (or any power source that comes on only in reverse).
- The other channels can simi-

- larly be triggered (i.e. side cameras can be triggered by the turn signals etc.)
- To automatically have camera
   and monitor turn ON when vehicle activates, simply twist BLUE positive trigger 12V+ to Red
   Power line 12V+ and wire to ignition power.

**Note:** This setup will disable the menu in channel 3. To access the menu simply move to channel 1 or 2 and all the changes will apply to channel 3.

Note: When the blue wire is active it will have precedence over the other triggers.
Therefore, if you wish to use multiple triggers, do not attach the blue trigger.

#### Wiring Camera & Monitor



- Audio: There is audio on channels 2 and 3. On channel 3 the blue trigger wire must be energized (12V) to activate the audio. On channel 2 the audio is always on.
- Grid-lines: The grid-lines are also carried through the blue wire. To use the grid-lines for reversing, connect the blue wire to a reverse power.
- There is a built-in voltage regulator for our systems which can handle 12-24 volts. Real consumption is 10 to 30 Volts.

Note: The camera and monitor can always be activated by manually pushing the power button on monitor. This is in addition to utilizing the positive triggers.

Note: If connecting power directly to battery, the camera is always ON and therefore can drain battery. Therefore it is recommended to connect power to an ignition switched accessory power source.

## Installation Diagram



Figure 1.1

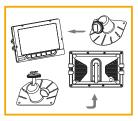


Figure 1.2



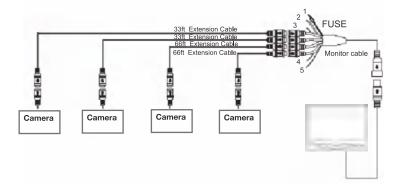
Figure 1.3



Connection of U Bracket

## Installation Diagram

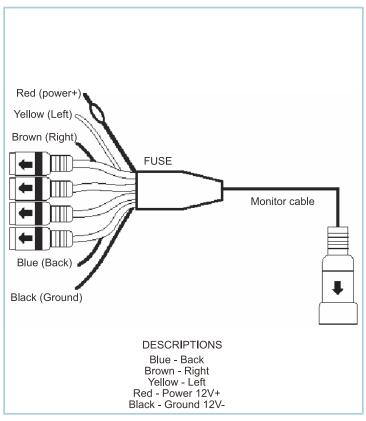




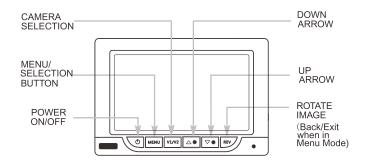
- 1. Red (power+)
- 2. Yellow (Left)
- 3. Brown (Right)
- 4. Blue (Back)
- 5. Black (Ground)

#### **Power Harness**











After entering the brightness option, adjust the brightness value through the " $\blacktriangle$  /  $\blacktriangledown$ " key in the panel. The larger the value, the brighter the picture, the smaller the value, the darker the picture;





After entering the contrast option, adjust the contrast value through the " $\blacktriangle$  / $\blacktriangledown$ " button in the panel to display the ratio of the bright and dark areas in the screen. The higher the contrast, the clearer the image;



After entering the color option, adjust the color value through the " $\blacktriangle$  /  $\blacktriangledown$ " button in the panel. The larger the value, the higher the color purity, the more bright the picture, the purity is lower, and the picture is dim;





After entering the language, press the MENU key to enter the adjustment language mode, and adjust the language through the panel "▲ / ▼";

The default language is English;



Press the MENU key entering to the Mirror AV1, select YES to active Mirror AV1 system through the panel  $\P$  /  $\P$ ", by default parameter is OFF;





Press the MENU key entering to the Mirror AV2, select YES to active Mirror AV2 system through the panel  $^{\blacksquare}/^{\blacksquare}$ , by default parameter is OFF;



Press the MENU key entering to the AVI Video, select ON to active AVI Video mode through the panel  $^{\blacksquare}$   $^{\blacksquare}$   $^{\blacksquare}$ , by default parameter is OFF;





Press the MENU key entering to the Mirror AV2, select YES to active Mirror AV2 system through the panel" ▲ / ▼", by default parameter is OFF;



Press the MENU key entering to the Distance Grid, select ON to active the function through the panel  $\mathbb{A}/\mathbb{A}$ , by default parameter is OFF;





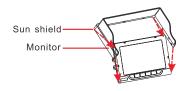
Press the MENU key entering to the Reset, select ON to Reset the System through the panel "  $\blacktriangle/\Psi$ ", by default parameter is OFF;

## Splitting & Splicing



#### INSTALLING

- Installing sun shield: Put shade cover on the display, make four corners tight
- Installing back cover: Put the monitor with shade cover in the back cover (only for emdded monitor)

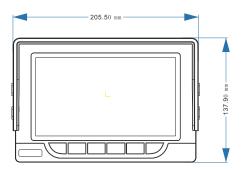


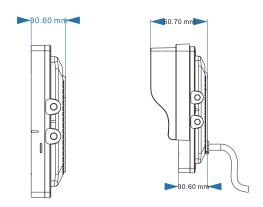
 Splitting sun shield: Take the monitor on the left hand detach by right hand as indicated by the white arrow (see below)



## Monitor Dimensions







## Monitor Specifications



7" HD TFT LCD Monitor		
Resolution	1024*3(RGB)*600	
Contrast	450:1	
Video system	Pal / NTSC auto matically	
Picture display format	16:9	
Brightness	400cd/m2	
Waterproof ratin	IP69	
Field of view	Top 85°/Bottom 85°/ Left85°/Right 85°	
Dimmer	Automatic by CDS se nsor or manual adjust	
Power input	DC10-36V, automatic power on/ off by ACC	
Audio input	0.5w speaker	
Image rotation	Left/ right/ up/ down	
Video input	4CH	
With sunshade & bracket optional		
Operation temperature	-20~+70°C	
Storage temperature	-30~+85°C	

#### Trouble Shooting



#### Monitor Displays Blue Screen & Displays No Signal

- Do a hard reset, unplug all cables and power cables leave out for 1 minute and then re-connect them.
- Check to ensure that the connection to the camera is tight.
- Verify camera cable is plugged into port labeled Backup Camera
- Verify that the blue positive

trigger on power harness is put to power 12v+.

If the problem still persists, ver ify that alternate ports work. If alternate ports do not work, re move Blue Trigger wire from 12V+ and select alternate channels.

#### Monitor Will Not Power-Up (no backlight on power button)

- Check fuse
- Check 12v+ to monitor

Check ground connection

#### No Image On Screen

- Verify camera is on correct camera input
- Verify cable is connected to monitor
- Verify camera is connected to cable
- Connect known working camera and cable to monitor.
- Verify Blue trigger is receiving power

#### Audio On Camera

- Verify chosen camera has audio
- Verify volume setting

- Confirm that the Blue audio
- Trigger is connected to 12v+