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## 8883010 Rear Observation System With License Plate Night Vision Camera



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# What's in the Box?

QTY.	Part Included in Kit	Replacement Part
1	Color CCD Infrared Weather Resistant Camera	8883102
1	7" TFT LCD Color Monitor with Standard U-Bracket Mount, Pedestal Mount, Flush Mount	8883300
1	Sun Shade	-
1	65' Camera Cable	8883165
1	Power Harness	-
1	Remote Control	-

## Accessories

8883116- 16' Camera Cable

8883132- 32' Camera Cable

8883165- 65' Camera Cable

8883182- 82' Camera Cable

8883101- Standard Camera

8883103- Recessed Bullet Camera

8883104- Side Surface-mount Camera

8883105- Sphere Surface-mount Camera

8883108- Dual Camera

# Introduction

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

**Congratulations** on purchasing a Rear Observation System With Night Vision Camera. With this manual you will be able to properly install and operate the unit.

The Rear Observation System is intended to be installed as a supplement aid to your standard rear view mirror that already exists in your vehicle. The Rear Observation 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 in any location that is visible, directly or indirectly, to the driver while operating the vehicle.

# Safety Information

Please read the entire manual and follow the instructions and warnings carefully. Failure to do so can cause serious damage and/or injury, including loss of life. Be sure to obey all applicable local traffic and motor vehicle regulations as it pertains to this product. Improper installation will void manufacturer's warranty.

## USAGE

- The Rear Observation System is designed to help the driver safely detect people and/or objects helping to avoid damage or injury. However, you the driver, must use it properly. Use of this system is not a substitute for safe, proper or legal driving.
- Never back up while looking at the monitor alone. You should always check behind and around the vehicle when backing up, in the same way as you would if the vehicle did not have the Rear Observation System. If you back up while looking only at the monitor, you may cause damage or injury. Always back up slowly.
- The Rear Observation System is not intended for use during extensive back-up maneuvers or backing into cross traffic or pedestrian walkways.
- Please, always remember, the area displayed by the Rear Observation System is limited. It does not display the entire panorama that is behind you.

# Safety Information

- Electric shock or product malfunction may occur if this product is installed incorrectly.
- Use this product within the voltage range specified. Failure to do so can cause electric shock or product malfunction.
- Take special care when cleaning the monitor.
- Make sure to firmly affix the product before use.
- If smoke or a burning smell is detected, disconnect the system immediately.
- Where the power cable may touch a metal case, cover the cable with a friction tape. A short circuit or disconnected wire may cause a fire.
- While installing the Rear View System be careful with the wire positioning in order to avoid wire damage.
- The Rear View System should only be used when the vehicle is in reverse.
- Do not install the monitor where it may obstruct drivers view or obstruct an air bag device.
- Dropping the unit may cause possible mechanical/ electrical failure.

## 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 components causing electrical interference.

We recommend doing a bench test before installation to insure that all components are working properly (pg 13).

**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 troubleshooting (pg 17).

# Before Beginning Installation

## Cable

1. Be sure to route the cable carefully. 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, such as but not limited to, exhaust systems and drive shafts.
2. Fasten and secure all excess cable.

## Monitor

1. To Attach the Pedestal mount to the dashboard or to the headliner/roof using self-tapping screws and/or the adhesive pad.
2. Attach monitor to mount, and adjust mounting angle to allow optimum driver viewing comfort. (see figure on page 11)

## Camera

1. Camera plug will require a minimum of a 5/8" opening or hole to be fed through. If none exist, find and mark location to drill hole for plug. Be sure there are no wires or obstructions behind marked location.
2. Deburr hole.
3. Feed plug and cable through the hole.
4. Secure camera to license plate mounting hole locations using existing mounting hardware.
5. Adjust camera angle by loosening set screws with a 1.5mm allen key. Once desired angle is found, tighten set screws.



# Installation Guide

## The Power Harness

- To power the system connect the power (RED) +12VDC 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 (CH1, CH2, CH3) each represent one channel and will turn on their channel when the trigger wire is energized with +12VDC.
- Camera 3 is the designated backup channel. To have the backup camera come on when you go into reverse, connect the CH3 wire to reverse power (or any power source that comes on only in reverse).
- The other channels can similarly 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 CH3 positive trigger +12VDC to Red Power line +12VDC 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 channel 3 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 to constant power.

# Installation Guide

- **Audio:** There is audio on channels 2 and 3. On CH3 the trigger wire must be energized (+12VDC) to activate the audio. On CH2 the audio is always on.
- **Grid-lines:** The grid-lines are also carried through the CH3 wire. To use the grid-lines for reversing, connect the CH3 wire to a reverse power. Grid lines can be deactivated in the menu. Menu > PARKSET > Toggle ON or Toggle OFF
- There is a built-in voltage regulator for our systems which can handle 10-30 Volts DC.

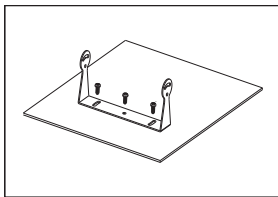
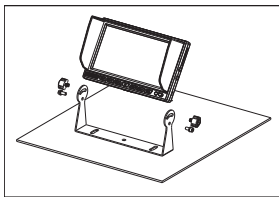
**Note:** *Included camera does not have built in microphone.*

**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.*

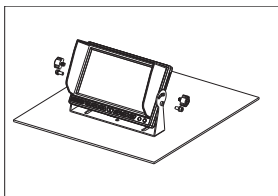
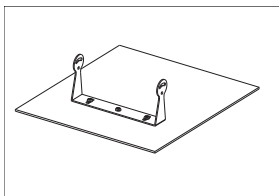
**Note:** *If connecting power directly to battery, the camera is always ON and therefore can drain battery. Therefore it is recommended to connect power to an ignition switched accessory power source.*

# Standard U-Bracket Monitor Installation

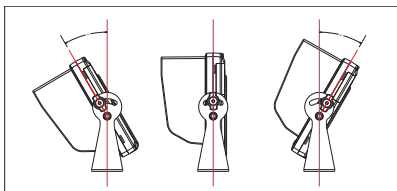
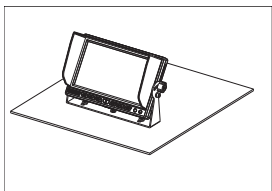
- 1.** Remove the thumb and allen screw from the monitor then remove monitor. Place bracket in desired location and fasten down with 3 screws. (See below pictures)



- 2.** Using the thumb and allen screws put the monitor into the bracket, adjust angle, and lock it. (See below pictures)



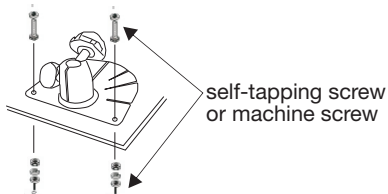
- 3.** Finish installation. The adjustable angle is 30° forward or backward. (See below pictures)



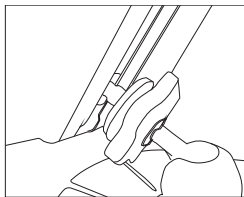
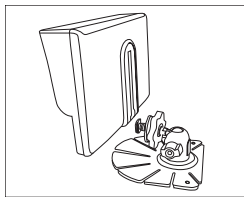
# Optional Monitor Installations

## Pedestal Mount

1. Using screws, secure pedestal bracket. (See below pictures)



2. Secondly, slide the metal buckle piece on the top of the pedestal bracket into the notch on the back of the monitor. Move the bracket to the desired location and tighten. (See below pictures)



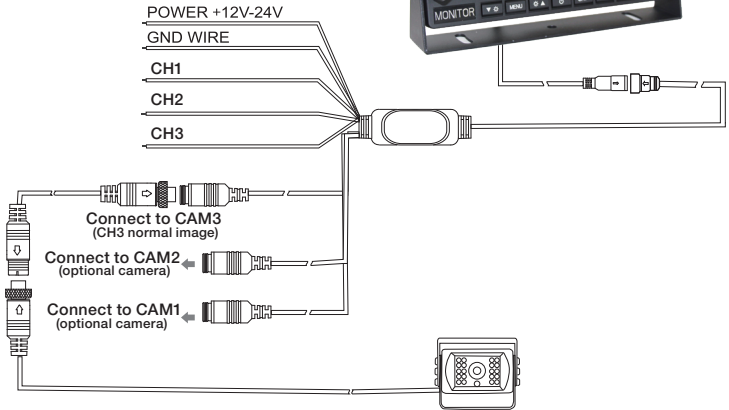
## Flush Mount



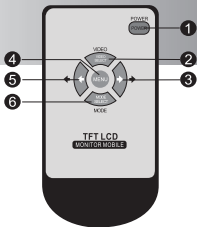
# Installation Diagram

## 4 Pin Connection

*NOTE: Diagrams are for installation reference only, monitor and camera are a representative image*



## Remote Control



1. Power
2. Switch over
3. "+"
4. Menu
5. "-"
6. Mode select

# Monitor Specifications



## 7" monitor

1. "-"
2. Menu
3. "+"
4. Power
5. Channel 1
6. Channel 2/Channel 3
7. Mode
8. Remote control window
9. A/V input connector
10. Bracket knobs

Screen size	7 inch
Aspect ratio	16:9
Resolution	800x480
Brightness	500cdm
Audio & Video	2 Ways video input (3 Ways video input optional) 3 Ways audio input 1 AV input (optional)
Video System	PAL & NTSC automatically
Voltage	12V-24V
Power Consumption	5W
Impact Rating	5G
Language	Multi-language
OSD Menu	Display Menu, Brightness, Color, Contrast Adjustable
Built-in speaker	Yes
Bracket accessories	U Type Bracket, Pedestal Bracket, Recessed Mount
Sunshade	Removable
Operation Temperature	-4°F ~ 167°F

# Camera Specifications

Sensor	1/4 CMOS
Resolution (PAL)	656 (H) x 492 (V) pixels
TV Line	420 TV Line
Lens	2.8mm
View angle	120°
Infrared distance	45ft (8pcs Infrared LED)
Min illumination	0.1 Lux (LED ON)
S/N Ratio	52dB
Video output	1Vp-p 75Ω
Water Resistant	IP68
Impact Rating	20G Vibration/10G shock
Operation Temperature	-4°F ~ 167°F

# Troubleshooting

## **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.
- Check to ensure that the connection to the camera is tight.
- Verify camera cable is plugged into camera port
- Verify that the trigger on power harness is put to power +12VDC.
- If the problem still persists, verify that alternate ports work. If alternate ports do not work, remove trigger wire from +12VDC and select alternate channels.

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

- Check fuse
- Check +12VDC connection
- Check ground connection
- Try power and ground direct to battery

## **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 trigger source is supplying power

## **Audio on Camera**

- Verify chosen camera has audio
- Verify volume setting
- Confirm that the CH3 trigger is connected to +12VDC



## **Two Year Warranty**

Buyers Products Company, Inc. warrants this product against material defects for a period of two years from date of purchase. We reserve the right to repair or replace any such defective unit at our sole discretion. Buyers Products Company, Inc. is not responsible for a defect in the system as a result of mis-use, improper installation, damage or mishandling of the electronic components. Buyers Products Company, Inc. is not responsible for consequential damages of any kind.

This warranty is void if: defects in materials or workmanship or damages result from repairs or alterations which have been made or attempted by others or the unauthorized use of nonconforming parts; the damage is due to normal wear and tear, this damage is due to abuse, improper maintenance, neglect or accident; or the damage is due to use of the Buyers Products Company, Inc. system after partial failure or use with improper accessories.

## **Warranty Performance**

DURING THE ABOVE WARRANTY PERIOD, SHOULD YOUR Buyers Products Company PRODUCT EXHIBIT A DEFECT IN MATERIAL OR WORKMANSHIP, SUCH DEFECT WILL BE REPAIRED WHEN THE COMPLETE Buyers Products Company, INC. PRODUCT IS RE-TURNED, POSTAGE PREPAID AND INSURED, TO Buyers Products Company, INC. OTHER THAN THE POSTAGE AND INSURANCE REQUIREMENT, NO CHARGE WILL BE MADE FOR REPAIRS COVERED BY THIS WARRANTY.

## **Warranty Disclaimers**

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