



REARVIEW MIRROR/MONITOR COMBO BACKUP CAMERA SYSTEM

INSTALLATION/USER'S MANUAL
STSK453X SERIES



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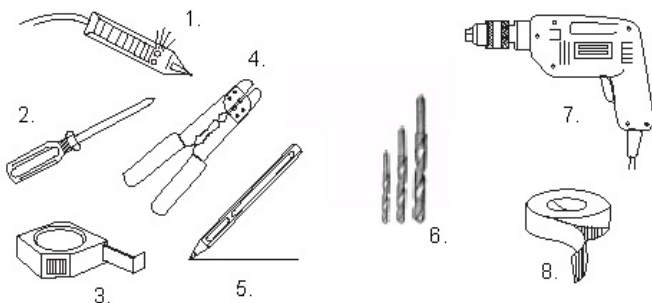
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MOR-VISION™ REARVIEW MIRROR/MONITOR COMBO BACKUP CAMERA SYSTEM

Rosco Vision Systems introduces a revolutionary new backup camera system for small to medium vehicles. MOR-Vision™ utilizes an interior rearview mirror to display a 4.3" LCD monitor when the vehicle shifts into reverse. This monitor allows the driver to see behind the vehicle for added convenience and safety. The camera has an advanced CMOS lens sensor able to process excellent images under dark and light conditions. The camera has a 170° diagonal field of vision giving superb coverage behind the vehicle and complies with the latest NHTSA 49 CFR Parts 571 and 585 (RIN 2127-AK43).

General Technical Specifications:

Power Supply:	12VDC
Power Consumption:	1 Watt
Current Draw:	<2000 mA
Video Input:	composite video; 1 Vp-p@75 impedance
Operating Temp:	-5°F to 150°F(-20°C to 65°C)
Monitor Dimensions:	11" W x 3" H x 1.5" D



- | | | |
|-------------------------|------------------|----------|
| 1. Wire Tester | 4. Wire Stripper | 7. Drill |
| 2. Phillips Screwdriver | 5. Pencil | 8. Tape |
| 3. Tape Measure | 6. Drill Bits | |

COMPONENT LIST - STSK4530

QTY	P/N	QTY
1	STSC130W (White) STSC130R (Chrome) STSC130B (Black) * System comes with 1 camera with a choice of three colors	Backup camera, includes: P/N STSC100X high mount, look down camera with hardware P/N STSH333 camera power and splitter harness
2	STSM230 STSDF1003	Back up camera mirror/monitor includes: P/N STSM230MO 4.3" color mirror/monitor P/N STSW1003 windshield mount #1 for mirror/monitor P/N STSH4530 monitor power harness
3	STSH330	Backup camera extension harness, 250FT, Rosco



Notes:

- Please read this manual carefully before using the product.
- This system is intended as an aid to safe reverse operation. Drivers must always use extreme caution when operating a vehicle.
- Specifications subject to change without prior notice.

Warning:

- To prevent electrical shock, **DO NOT OPEN MONITOR CASE.**
- Avoid exposing monitor to water, rain, moisture etc.
- Do not disassemble the camera. This voids the warranty. Disassembling the camera will compromise the waterproof seal.

COMPONENT LIST - STSK4531

QTY	P/N	QTY
1	STSC130W (white) STSC130R (Chrome) STSC130B (Black) * System comes with 1 camera with a choice of three colors	Backup camera, includes: P/N STSC100X high mount, look down camera with hardware P/N STSH333 camera power and splitter harness
2	STSM231	Back up camera mirror/monitor includes: P/N STSM231MO 4.3" clip on color mirror/monitor P/N STSH4530 monitor power harness
3	STSH330	Backup camera extension harness, 250FT, Rosco, P/N STSH330

STSM231



Notes:

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- This system is intended as an aid to safe reverse operation. Drivers must always use extreme caution when operating a vehicle.
- Specifications subject to change without prior notice.

Warning:

- To prevent electrical shock, **DO NOT OPEN MONITOR CASE.**
- Avoid exposing monitor to water, rain, moisture etc.
- Do not disassemble the camera. This voids the warranty. Disassembling the camera will compromise the waterproof seal.

HOW TO OPERATE DISPLAY



Display Operation

1. V1/V2 - Switches video feed from channel 1 to channel 2.
2. "Up" - Menu selection control.
3. Menu - Switches to setup menu.
4. "Down" - Menu selection control.
5. Power - Switches monitor from Standby to Steady on.

Monitor Technical Specifications:

Screen:	4.3" TFT Color LCD
Brightness:	350cd/m ²
Contrast Ratio:	300:1
Resolution:	480 x 272
Current Draw:	120mA
Video Format:	NTSC/PAL
Display Format:	4 : 3 or 16 : 9
Nomenclature:	12V
Working Temp:	-5°F to 158°F (-20°C to 70°C)

How To Set Your Monitor

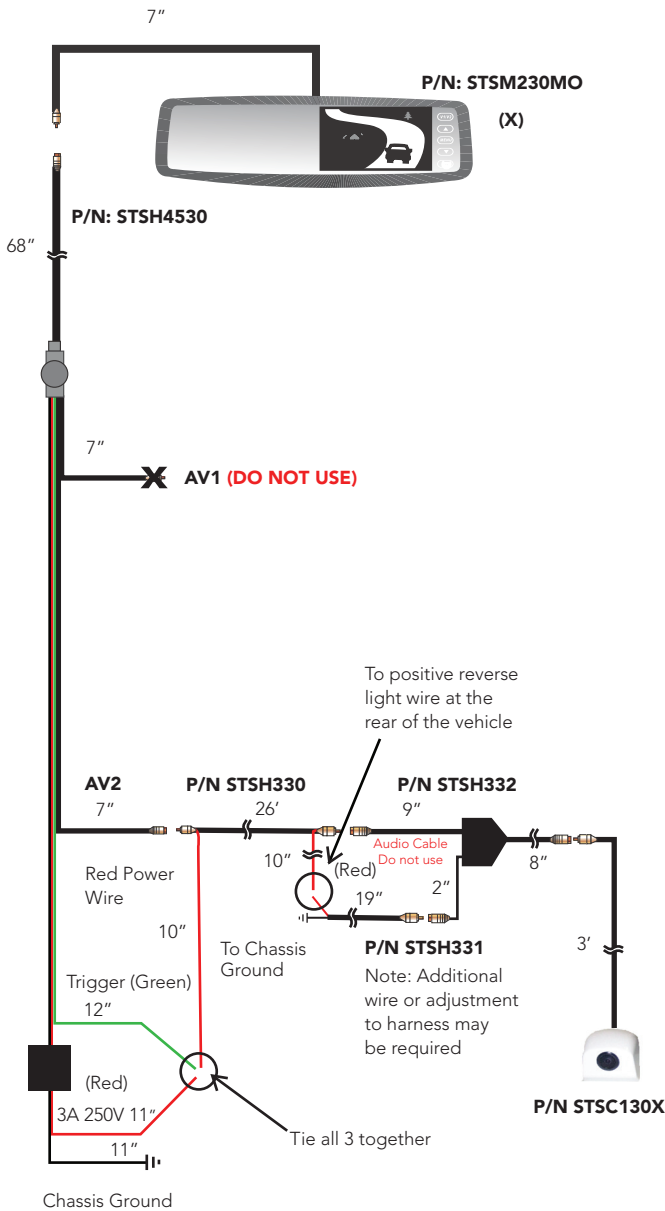
On-screen menu commands may be selected pressing the MENU button while the mirror monitor is on.

Brightness
Contrast
Saturation
Hue
Sharpness
4:3/16:9
Reset

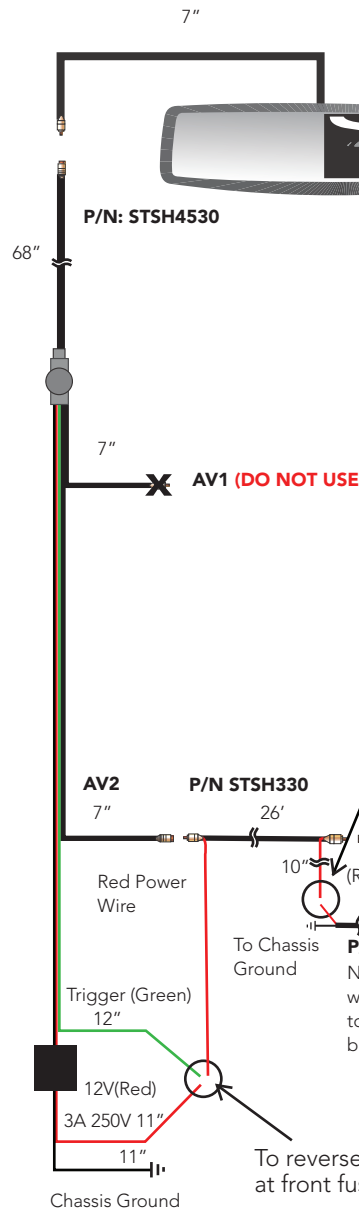
IMPORTANT: The Rearview Mirror Monitor is not intended to be used for prolonged periods of time. Therefore the monitor stays off until triggered by the reverse circuit.

WIRING DIAGRAM

Option #1: Power provided from back of vehicle (Most Common)

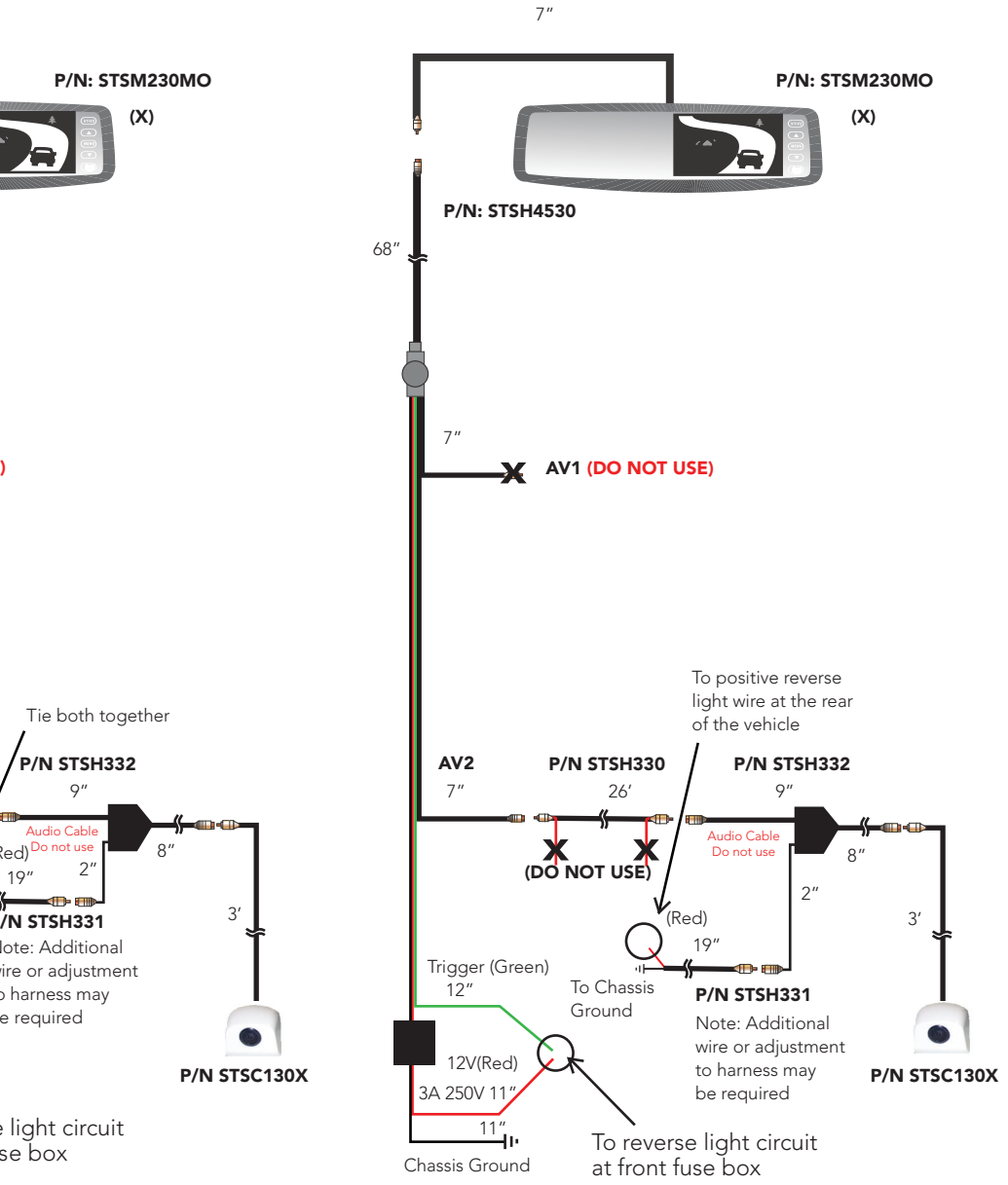


Option #2: Power provided from front of vehicle



from front of vehicle

Option #3: Power provided from front and back of vehicle (Least Common)



COLOR CAMERA



Camera Technical Specifications:

Signal System: NTSC

Sensing Area: 5.55x5.55mm

Sync System: Internal

Horizontal Resolution: 420TVL

Minimum Illumination: 0.2Lux

Diagonal Angle: 170°

Video Output: RCA, 1.0Vp-p,
75ohm

SNR: Better than 48db

Waterproof Grade: IP67

Current Draw: Max. 90mA

Nominal Voltage: DC12V

Features and Benefits:

- Superb Night Vision
- 170° Diagonal field of vision
- Easy install

REARVIEW MIRROR INSTALLATION

1. Attach windshield mounting bracket to the back of STSM230 mirror/monitor. Be certain that the monitor is in the upright position when attaching the mounting bracket. (Figure 1)
2. Remove old rearview mirror from factory mirror-mount tab.
3. Mount rearview mirror monitor securely to mounting tab by tightening screw. (Figure 2)
4. Route the 8-pin connector end of the power harness to the location of mirror monitor (preferably through the headliner and the vehicles A or B pillars).
5. Connect the power harness with the mating 8-pin receptacle end coming out of the mirror monitor.

IMPORTANT: Please be certain to match both guiding lines on each connector for a proper connection.

For Clip On Mirror Monitor

1. Expand STSM231 mirror monitor clamps and place over existing rear view mirror

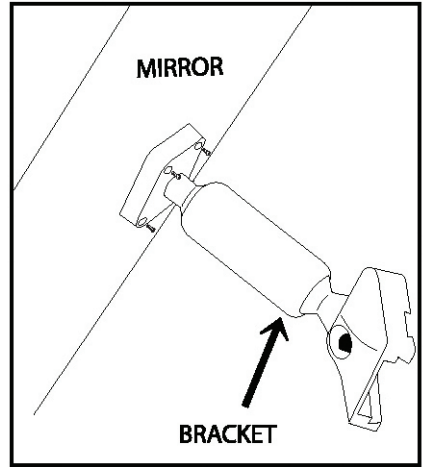


Figure. 1

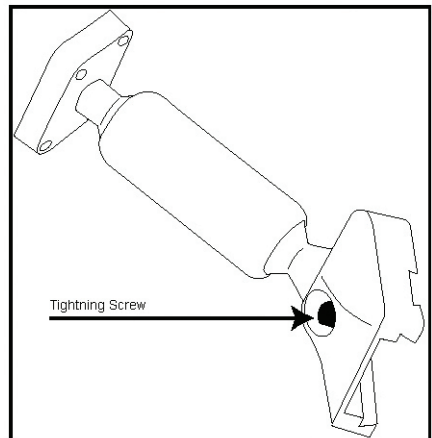


Figure. 2

CAMERA INSTALLATION

1. Select a high and centered location at the rear of the vehicle to mount the STSC130 camera.

IMPORTANT: When selecting this location it is highly recommended that the image transmitted by the camera show the rear bumper and area behind the vehicle.

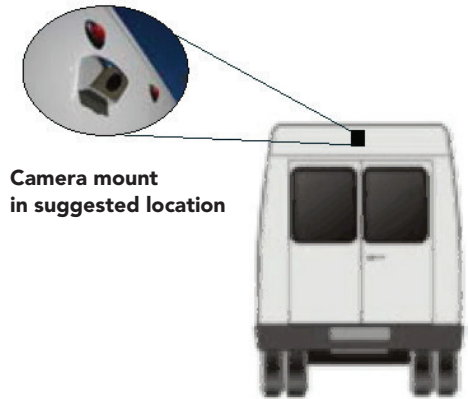
2. We do not recommend mounting the camera near the lower area of the vehicle (ex. bumper). This reduces the view of the camera and increases the chance of physical damage to the camera.

3. Once the location for the camera is chosen, drill the mounting hole to the inside of the vehicle using a 5/16 drill bit. Be sure to clear any obstacles before drilling hole.

4. Attach the provided 3M double sided tape to the back of the camera.

5. Insert camera wire through newly drilled hole and mount securely in place.

6. To finalize the camera installation, hand tighten the provided 5/16 nut to the back of the camera on the inside of the vehicle.



Camera mount
in suggested location

Mount Camera assembly high. (centered)

Figure. 1



Figure. 2

Obstructions behind Truck



Typical monitor image of view from properly installed camera

Figure. 3

TESTING

How to Test:

1. Apply the parking brakes.
2. Turn Ignition on.
3. Shift into reverse gear.
4. Image should appear on the monitor.

Trouble Shooting

Problem	Solution
No video signal appears while reversing the vehicle.	Check all camera connections (ex. Power, Ground, AV1, AV2) Press AV1/AV2 button to change video inputs Check the rearview camera wiring and connection.
Video image is not sharp.	Clean the lens of the camera

Maintenance:

Always keep camera clear from dirt, snow, and mud. Clean camera with a soft towel and low pressure water.



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