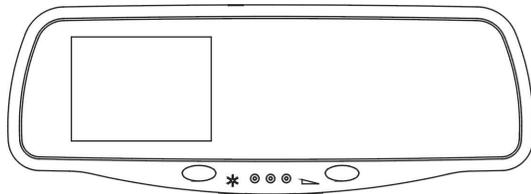




Retrofit Rear View Mirror with built-in 4.5in LCD Monitor & Hands-Free Phone Interface

User's Manual

Model SV-9045



Features:

- Rearview Mirror with 4.5, LCD
- 2 Built in Speakers
- Rearview Camera Input
- Auxiliary Video Input
- Cellular Phone Hands Free Input
- Hands Free Microphone Built-in

NOTE: Hands free feature may not operate with all cellular phones and/or an adapter may be required. Rearview camera optional.

TABLE OF CONTENTS

Cautions!	2
Preface	3
Packing list	3
Installation Instructions	5
1. Mount the mirror/monitor	5
2. Install the Adaptor Box.....	5
3. Install the mobile phone hands free seat	6
4. Illustration for Connection.....	6
Operation Descriptions	8
1.Signal Inputs	8
2. Controls and Indicators	9
3. Operations	10
Specifications	11
Troubleshooting	12
Maintenance	12

Cautions!

The product is intended to assist in safe driving and to allow the driver to have a broader rearview while the vehicle is in reverse. You, as the driver, are solely responsible for the safe operation of your vehicle and the safety of your passengers according to the country and their local traffic regulations. Do not use any features of this system to the extent it distracts you from safe driving. Your first priority while driving should always be the safe operation of your vehicle. We cannot accept any responsibility whatsoever for accidents resulting from failure to observe these precautions or safety instructions.

- 1.This product utilizes high voltage. Any unauthorized modifications or damage to the products may result in electrical shock. Handle all components with care. Inspect regularly for damage to components and cabling.
- 2.You shall be responsible to ensure that the installation of this product does not void or affect the vehicle manufacturer's warranty. We are not liable in full or in part for improper installation resulting in loss or damage to your property, or for voiding all or part of the vehicle manufacturer's warranty.
- 3.Do not apply excessive force to any of the components contained within this kit. Excessive force used before, during or after installation that results in a damaged or non-functional part shall void all warranties.
- 4.Please follow the procedure from this installation manual. Improper installation or modification of this product shall void all warranties.
- 5.You are advised not to display the external video input while driving.
- 6.When using the hands free feature, you should observe the road situation carefully to avoid traffic accidents.

Preface

There is a blind spot that exists at the back of a vehicle while the vehicle is in reverse. Equipped with a camera, this electronic rearview mirror ensures safety by providing the driver with a clear and wide image of the area behind the vehicle whenever SW1 is pressed.

WARNING:

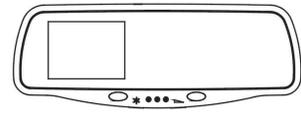
Backing up vehicle

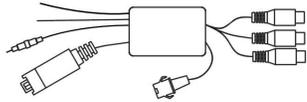
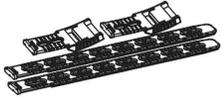
Do not back up vehicle while watching the mirror/monitor screen. Always look in the direction of vehicle motion. Use the mirror/monitor as an aid in safety confirmation. The distance looks different in the monitor. The actual distance is shorter than it looks in the monitor. The range of image is limited. Beware of blind spots.

This product must be installed and used only in accordance with these instructions. Any alteration of this product that enables it to be used in ways other than those stated in this manual could distract the driver and result in an accident or injury. WE DISCLAIM ANY LIABILITY THAT MAY RESULT FROM A FAILURE TO INSTALL AND OPERATE AS INDICATED IN THE MANUAL.

Packing list

The Rear Observation System Package Model consists of the following items:

Item	Description	Figure
1	Rear View Mirror	

Item	Description	Figure
2	Adapter	
3	Fastening Belts	
4	Wire Clip	
5	Mobile Phone Adhesive Magnetic Seat	
6	Mobile Phone Hands Free Plug	
7	Rearview Camera (Optional)	
8	Camera Cable	
9	User's Manual	

Installation Instructions

1. Mount the mirror/monitor

1) Take the two belts and slide them into the slots on the top rear of the mirror with grooved side of the belt facing down.

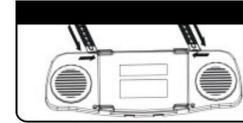


Figure 1

2) Take the buckles and slide them into the lower slots on the rear of the mirror with the buckle facing down toward the strap.

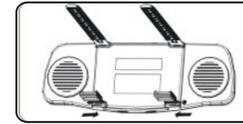


Figure 2

NOTE: The large opened rectangle on the buckle will face away from the strap.

3) Mount the new rearview mirror/monitor onto the existing one.

Add the rearview mirror onto the existing mirror from one side with one fixed belt. Then fasten the other belt on the other side of the mirror. To prevent the mirror from falling off, tighten the belts until secure to the factory rearview mirror on both sides.

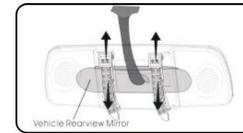


Figure 3

4) Cut off excess part of straps.

2. Install the Adapter Box

Connect the adapter box cable to the rearview mirror/monitor cable. Route the monitor cable behind the headliner of the windshield. And then Wiring the System:

1). **RED FUSED WIRE: +12 VDC ACCESSORY SOURCE**

Connect this wire to a source that is 12 volts (+) when the Ignition key switch is turned on, and 0 volts when the ignition key switch is turned off.

2).BLACK WIRE: CHASSIS GROUND

Connect this wire to a solid, metal part of the vehicle's chassis.

3).GREEN WIRE: REVERSE LIGHT SWITCH WHEN VEHICLE IS IN REVERSE

Connect this wire to the wire from the reverse light switch that is 12 volts (+) while the vehicle is in reverse.

3. Install the mobile phone hands free seat

- 1) Select a suitable and convenient location for the mobile phone. Clean the selected location.
- 2) Tear off the adhesive tape on the back of the hands free seat. Press seat tightly on to the selected surface for 30 seconds till the two surfaces are tightly glued. (See Figure 4 and Figure 5)

NOTE: Make sure the two surfaces are glued tightly!

- 3) Clean a place on the back of the cell phone, keeping it dry. Remove the adhesive tape of the rounded metal sheet and stick it to the selected place on the back of the cell phone.

NOTE: Do not attempt to move the phone within 24 hours after gluing.

CAUTION: The rounded metal sheet can only be glued once, so be sure it is at the right place!

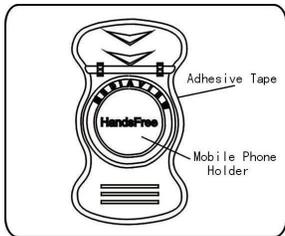


Figure 4

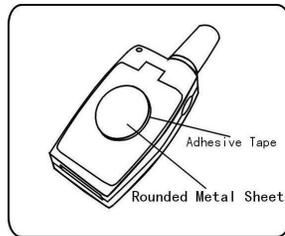


Figure 5

4. Illustration for Connection

Connect the mirror cables, adapter, mobile phone and power cables follows the fig.4 illustration for connection.

Illustration for Connections

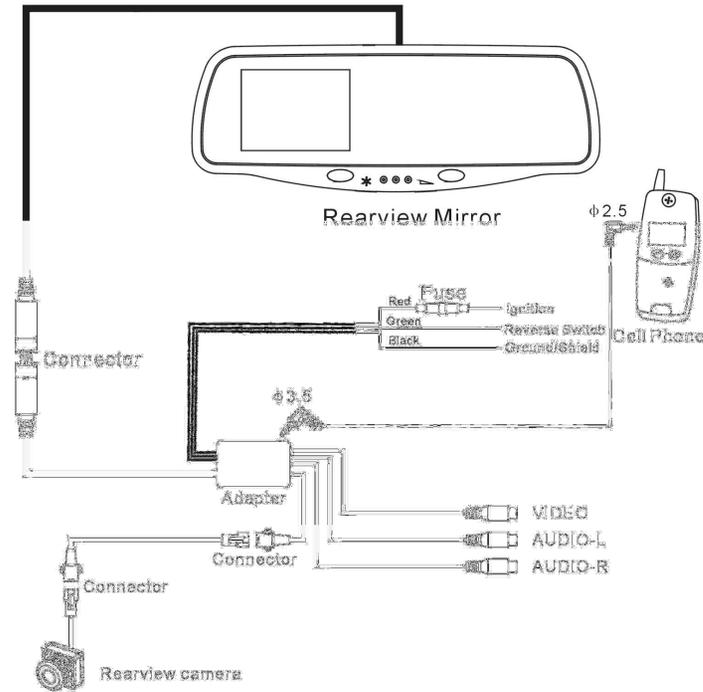


Figure 6

Operation Descriptions

1. Signal Inputs

The signal input connections for the system include:

- 1) Rear Camera: By connecting rear camera with 4 pin connectors, users can see the rearview camera image when the car is in reverse.
- 2) Audio/Video Input Plugs (RCA) are located at the end of the Main Cable. By connecting video and audio signals with these plugs, the user can enjoy watching video, only while the parking brake is on.
- 3) Hands Free Jack: Put the hands free plug (3.5mm) into hands free jack and put the other side of plug into the headphone jack of the mobile phone. (If necessary, try a compatible adapter).

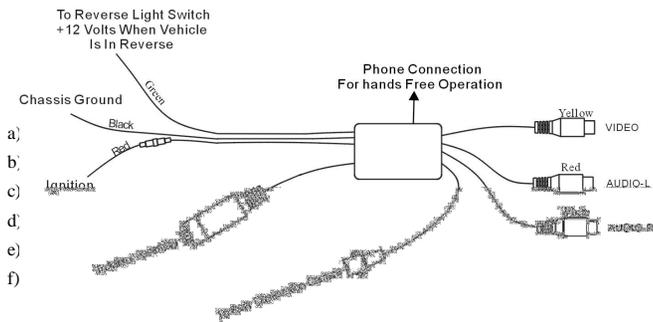


Figure 7

2. Controls and Indicators

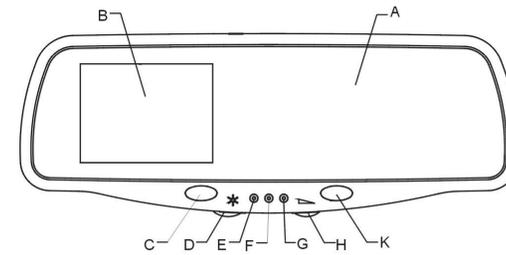


Figure 8

Figure 8 shows the function of rear view mirror.

- A: Rearview Mirror ;
- B: 4.5" LCD panel ;
- C: Switch 1;
Used to turn the LCD on/off.
- D: LCD Brightness Control;
Rotating the wheel to the left will increase the brightness.
- E: LED1;
LCD On/Off Indicator (Red when LCD works on)
- F: Hands Free Microphone;
- G: LED2;
Power Indicator (Red when Power is on)
- H: Speaker volume control;
Rotating the wheel to the right will decrease the sound level. Rotating the wheel to the left, will increase the volume.
- K: Switch 2;
(1).Used to toggle display image between rearview camera and DVD/VCR while vehicle driving and parking.
(2).Used to shift the Audio/Video input when the LCD turned off.

3. Operation

1). How to turn the rear view mirror on/off

The Mirror/monitor is ready for operation every time the Ignition key is turned on. The mirror/monitor turns off every time the Ignition is turned to the off position.

2). How to view the rear observation camera image

A. The monitor will display the rear observation camera image whenever the vehicle is shifted into the reverse gear. The rear observation camera image turns off automatically any time the gear selector is moved out of the reverse position.

B. If you want to view the rear observation camera image at any other time, press SW2 on the rearview mirror. Pressing the SW2 again will turn off the image.

C. The mirror/monitor can be used as regular glass rearview mirror.

3). How to play an external audio or video signal

A. You must be sure the external audio or video device is engaged.

B. Press SW1 to turn on the LCD and the external signal input.

C. Press SW1 to turn off the LCD and the external signal input.

4). Cellular Phone Hands-Free Operation

A. Attach the round metal adhesive disc to the back of your mobile phone while not in use, and then attach the mobile phone adhesive magnetic mount to your selected spot of the dash area. By placing your cell phone with the metal disc over the center of the magnetic seat, your cell phone will be attached tightly to the dash;

B. Plug in the 2.5mm hands free cable into your cell phone headset jack. The other end of this cable should be connected to the mirror jack.

Note: If your cell phone does not have a 2.5mm headphone jack then an adapter must be used for your particular cell phone. Also not all cell phones are compatible with this mirror hands-free circuit.

C. To answer a call, press the receiving button on your cell phone as usual, the hands free system will engage automatically.

D. The volume of the other party's voice can be adjusted by turning the volume control under the bottom of the mirror on the right side.

It may be necessary to adjust phone volume.

E. To end the call, press the hang-up button. The hands free function will turn off automatically and several seconds later the system will go back to its original audio input.

Specifications

General

Power Supply	DC 13.8V
Power Consumption	<=8W
Current Draw	<500 mA
Audio Power Output	0.5W × 2
Operating Temperature Range	☉ to 5☉

Display System

Screen	4.5" TFT Color LCD
Brightness	400 nit
Contrast ratio	150:1
LCD Viewing Angle	Top-15°, Bottom 35°, Left 50°, Right 50°
Resolution	960×234
Video Format	NTSC or PAL
Display Format	16 : 9

Adapter Control System

Power Consumption	<=1W
Video Input/Output	1Vp-p/ 75 Impedance
Audio Input/Output	1Vp-p
Audio Impedance	10KΩ

**Troubleshooting
Table 1 Rearview Mirror**

Symptoms	Solutions
The ON/OFF signal light <D> is not on after the car is started?	1.Check the installation-wiring diagram. 2.Ensure that the parallel red and black line is connected properly
No video signal appears while reversing the car?	1.Check the LCD Contrast (Brightness)control knob whether the contrast knob is set too low. 2.Check the rearview Camera lens. 3.Check the rearview Camera wiring and connection. 4.Check the cable from the rearview mirror is connected properly. 5. Check out the wire connection
Video image is not sharp enough?	Clean the lens of the camera.

Table 2 Hands Free Phone

Symptoms	Solutions
When the Hands Free Phone Function is not working?	1.Check the volume control knob whether the volume is set too low. 2.Check to see if the hands free cable plug to the phone hand set input jacket is properly connected. 3.Check whether the phone hands free cable plug is properly connected to the adapter.

Maintenance

Your rearview mirror requires little care, however to maintain it in optimum condition follow the procedures below:

1. Keep your system away from excessive moisture, extreme heat or cold and magnetic fields.
2. Keep liquids away from the display.
3. Do not place external devices or other objects on the top of the mirror.
4. Occasionally clean the surface of the mirror with a soft cloth moistened with water or window cleaner.

**CRIMESTOPPER
SECURITY PRODUCTS, INC.
1770 S. TAPO STREET
SIMI VALLEY, CA. 93063**

**TECH SUPPORT:
PHONE: 800-998-6880
FAX: 805-581-9500
WWW.CRIMESTOPPER.COM**