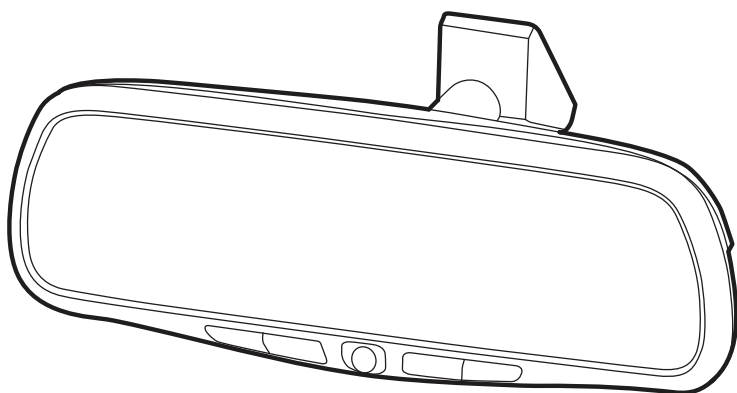




Installation Manual



Rearview Mirror/Monitor

Model: M45TC

For Technical Assistance, please call (800) 638-3600,
or visit www.magnadyne.com

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Warning

This product is intended to assist drivers in the safe operation of backing up and driving a motor vehicle. Any alteration or modification to the product, the design or the proper installation of this product in accordance with the installation instructions herein is strictly prohibited. Magnadyne assumes no responsibility whatsoever for any injury or accidental death resulting from the failure to properly install this equipment.

Introduction

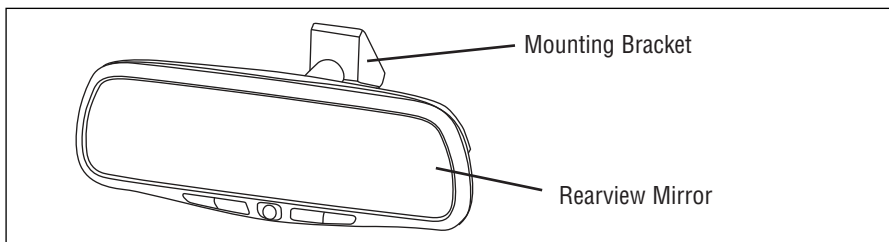
The replacement mirror/monitor can display up to 2 different video inputs. The inputs are Rearview Camera and Interior View Camera.

Parts/Component List:

1. Rearview Mirror (Qty. 1)
2. Camera Cable (Qty. 2)
3. Control Box (Qty. 1)
4. Filter Box (Qty. 1)
5. Control Box Monitor Cable (Qty. 1)
6. Compass Sensor (Qty. 1)
7. Temperature Sensor (v1)
8. Tapping Screw (Qty. 3)
9. Connector (Qty. 1)
10. Wire Cover (Qty. 2)
11. Double Side Adhesive Tape (Qty. 1)
12. Compass and Temperature Monitor Cable (Qty. 1)
13. Mirror Mount (Qty. 1)

Installation Instructions

Mounting the Mirror/Monitor:



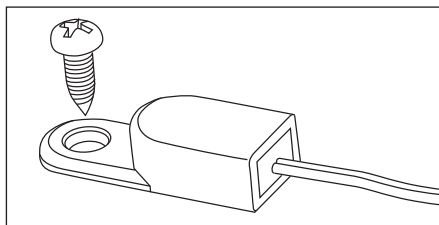
1. Remove the factory mirror (do not use excessive force). Check to make sure that the factory mirror mount matches the mounting bracket on the replacement mirror/monitor. If the factory mirror mount does not fit the mirror/monitor's mounting bracket, replace with the extra mirror mount provided.
2. Slide the mounting bracket onto the mirror mount. Move the bracket back and forth until completely seated.
3. Tighten the screw in the mounting bracket.

Control Box Connection

Connect the 8-pin extension cable to the rearview mirror/monitor 8-pin cable. Route the cable under the headliner of the windshield then down the A-pillar behind the plastic shroud to the under-dash area. Connect the 8-pin cable to the control box 8-pin connector.

Installing the Temperature Sensor:

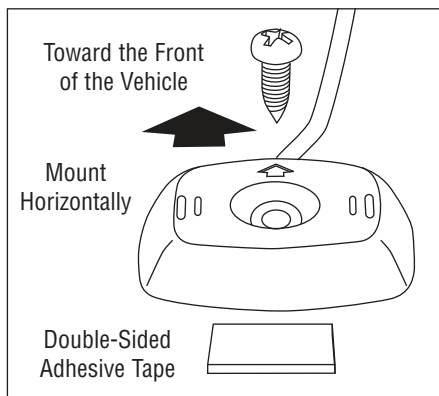
1. Select a suitable location for the Temperature Sensor outside of the vehicle. The location should be in the front of the vehicle, between the radiator and front bumper where there will be airflow. Keep the sensor as low as possible, and as far away from the radiator as possible.
2. Use the supplied screw to secure the temperature sensor to the selected location.
3. Route the temperature sensor cable towards the firewall, securing the cable where it doesn't interfere with moving parts.
4. Pass the terminals through a grommet into the passenger compartment.
5. Route the wires up to and behind the A-Pillar, then under the headliner towards the Rearview Mirror.
6. Connect the 2-pin connector from the sensor to the mating end of the Temperature/Compass Y-cable.
7. Connect the 6-pin Temperature/Compass Y-cable to the rearview mirror/monitor cable.



Installation Instructions

Installing the Compass Sensor:

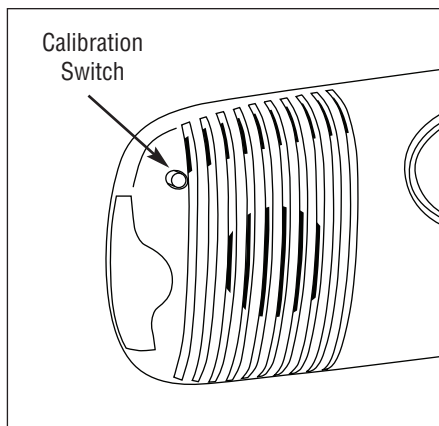
1. Select a suitable mounting location for the Compass Sensor. The sensor must be mounted **HORIZONTALLY** and with the arrow pointing toward the front of the vehicle. Do not mount near a speaker or magnetic source. Under the dash top panel is a recommended location.
2. Secure the Compass Sensor using the screw provided or double-sided adhesive tape to the selected location with the head of the compass sensor arrowhead facing forward.
3. Route the Compass Cable up the A-Pillar and connect the 5-pin Compass Sensor Cable to the mating 5-pin connector of the Temperature/Compass Y-cable.
4. Tuck the connectors under the headliner.



Note: Compass must be calibrated before use.

How to Calibrate the Compass Direction:

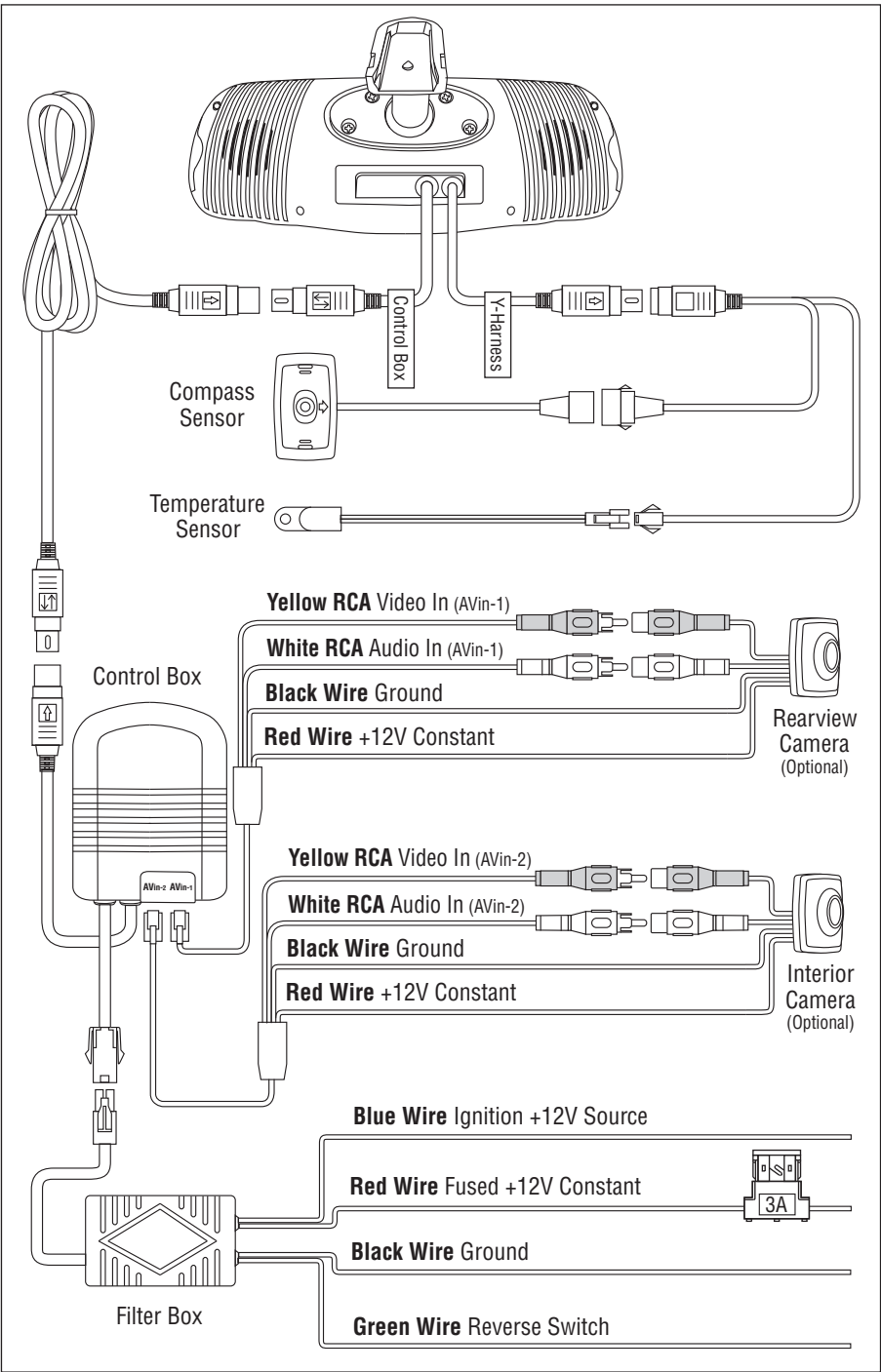
1. Ensure the Compass Sensor has been securely mounted.
2. Position the vehicle so that the front of the vehicle faces North.
3. Press the Calibration Switch located on the right rear side of the mirror to the "IN" position.
4. Drive the vehicle in one or more complete circles. This process must be 10 seconds or more in order to calibrate properly.
5. Press the Calibration Switch again, returning the switch to the "OUT" position. Now the mirror will display the compass direction accurately.



Installing the Mirror Cable Cover:

1. Remove the adhesive tape on the base of the cable cover, and stick it to the windshield next to the mirror's mounting bracket.
2. Place the mirror extension cables on the wire cover's base, and then install the top cover into the base to cover both cables.

Electrical Connections



Electrical Connections

Filter Box:

Blue Wire: Connect this wire to a switched +12 volt power source (a power source turned on and off by the ignition key).

Red Wire (with Fuse): Connect this wire to a constant +12 volt power source (a power source that is not controlled by the ignition key).

Black Wire: Connect this wire to the frame of the vehicle (ground). This wire is the chassis grounding wire for the unit.

Green Wire: Connect to reverse light switch (12 volts when vehicle is in the reverse gear).

Signal Input

Control Box:

Camera Input, AVin-1 (Rearview Camera): Plug the RJ11 camera cable end into the control box AVin-1 port and route the cable to the rearview camera. Connect to the rearview camera using the RCA connectors.

Yellow RCA: Connect to the video output from the rearview camera.

White RCA: Connect to the audio output from the rearview camera.

Red Wire: Connect this wire to the +12V wire from the rearview camera.

Black Wire: Connect this wire to the ground wire from the rearview camera.

Camera Input, AVin-2 (Interior Camera): Plug the RJ11 camera cable end into the control box AVin-2 port and route the cable to the interior camera. Connect to the interior camera using the RCA connectors.

Yellow RCA: Connect to the video output from the interior camera.

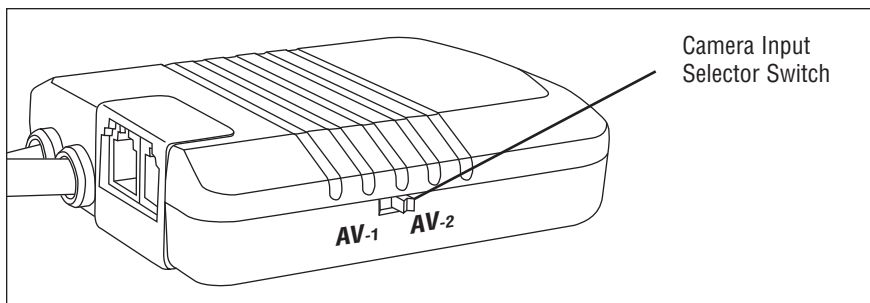
White RCA: Connect to the audio output from the interior camera.

Red Wire: Connect this wire to the +12V wire from the interior camera.

Black Wire: Connect this wire to the ground wire from the interior camera.

Camera Input Selector Switch:

- If using camera inputs AVin-1 (Rearview Camera) and AVin-2 (Interior Camera) place the switch in the AV-2 position.
- If using only AVin-1 (Rearview Camera) input place the switch in the AV-1 position.

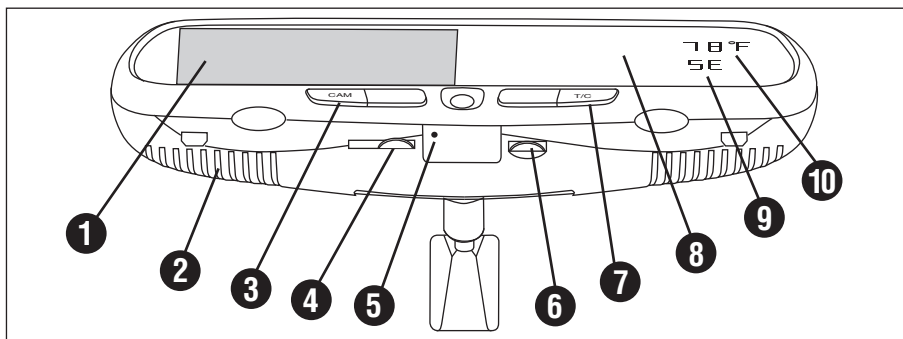


Mirror Housing:

Compass Sensor: Connect directly to mirror using the Y-harness.

Temperature Sensor: Connect directly to mirror using the Y-harness.

Testing and Operation



1. 4.5" LCD Monitor

2. Internal Speaker

3. CAM Button (Camera Selection)

- If you have installed an optional interior view camera with microphone, press the CAM button to display the image from the interior camera on the monitor and hear the audio from the internal speaker. Press the CAM button again and the image from the interior camera will no longer be displayed and the audio will no longer be heard.
- If you do not have an interior view camera installed, but have installed a rearview camera with microphone, pressing the CAM button will display the image from the rearview camera on the monitor but no audio will be heard. Press the CAM button again and the image from the rearview camera will no longer be displayed.

Note: If the vehicle is put into reverse the rearview camera image will be displayed on the monitor and the audio can be heard through the internal speaker.

4. LCD Monitor Brightness Control: Rotate the wheel to increase or decrease the brightness of the monitor.

5. Power On Indication LED

6. Internal Speaker Volume Control: Rotate the wheel to increase or decrease the volume of the internal speaker.

7. T/C Button (Temperature/Compass): The temperature/compass button switches between Fahrenheit and Celsius settings and also turns the display On or Off.

8. Rearview Mirror Glass

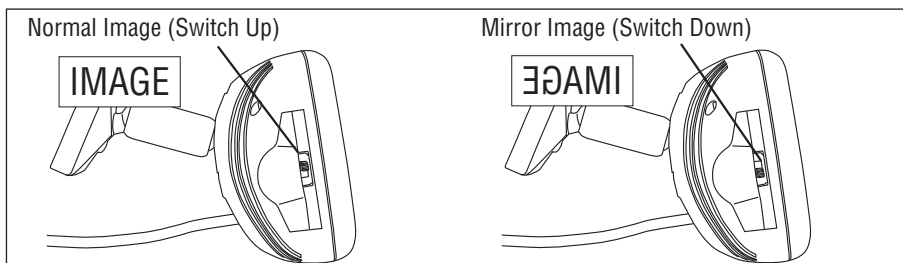
9. Compass Display

10. Temperature Display

Mirror/Normal Image Selectable Switch:

Using the mini-screwdriver to open the left cover, move the switch up for normal image or switch down for mirror image.

Note: Double check and make sure the image direction is correct before you finish the installation.



Troubleshooting

Symptoms	Solutions
The Power On Indication LED is not On after car is started.	<ul style="list-style-type: none"> • Check the installation-wiring diagram. • Ensure that the parallel red and black line from the control box is connected properly. • Check for 12 volts on the blue wire while the ignition is on.
No video signal appears while reversing the car.	<ul style="list-style-type: none"> • Check the rearview camera lens. • Check the rearview camera wiring and connection. • Check that the cable from the rearview mirror is connected to the AVin-1 port on the control box. • Check out the wire connection (to find out whether the system's reverse wire cable is connected to the reverse switch of the car.
Heading information is not accurate.	<ul style="list-style-type: none"> • Calibrate the system (see page 4). • Check to see if the compass sensor is too close to a speaker or other magnetic device. • Check to see if the compass sensor is too close to a steel part. • Check to see if the compass sensor is mounted horizontally. • Check the compass heading direction.
Temperature/Compass display does not change when T/C button is pressed	<ul style="list-style-type: none"> • Calibration button is pressed "IN". Press and release the calibration button to the "OUT" position (see page 4).

Specifications

General:

Power Supply:	12VDC
Power Consumption:	<12W
Current Draw:	<800mA
Video Input:	1Vp-p/75 Impedance
Audio Input:	<=1V
Audio Power Output:	0.5W x 1 (16Ω)
Operating Temperature Range:	0 to 50 Degrees C

Display System:

Screen:	4.5" TFT Color LCD
Brightness:	400cd
Contrast Ratio:	150:1
Backlight Life:	10,000 Hours
Resolution:	960 x 234
Video Format:	PAL/NTSC Auto Detect
Display Format:	16:9