

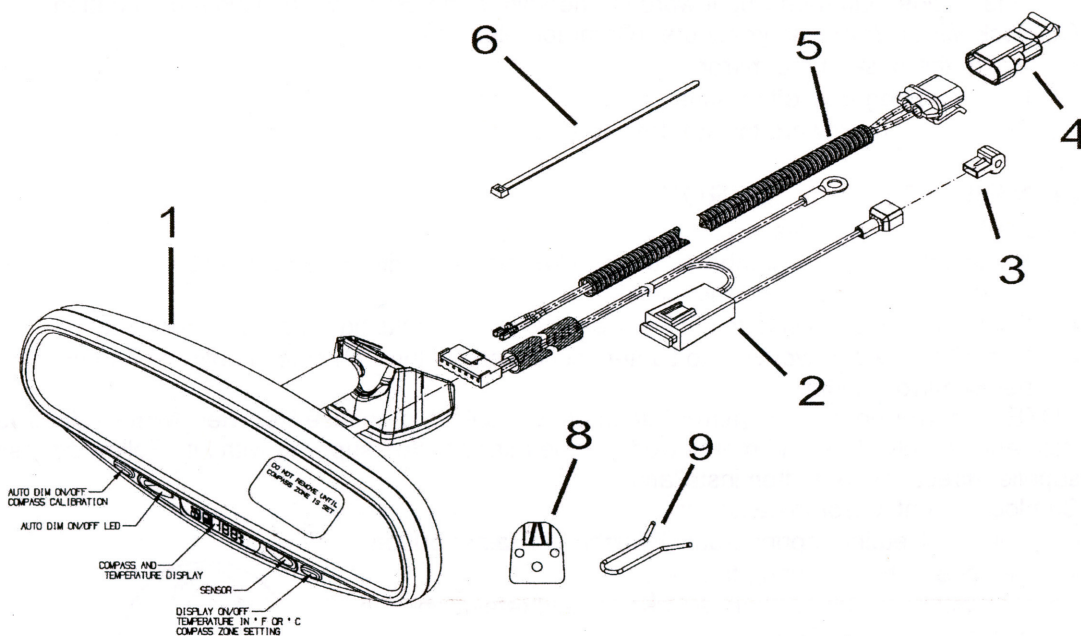
AUTO DIMMING MIRROR INSTALLATION GUIDE

FOR WINDSHIELD MOUNT MIRRORS

READ ALL INSTALLATION INSTRUCTIONS PRIOR TO START OF INSTALLATION

FEATURES				Wedge Mount Part Number	Camlock Mount Part Number
Auto-Dimming	Compass	Temperature		36400	36401
Auto-Dimming	Compass	Temperature	Map Lamps	36500	36501

PARTS LIST		QUANTITY PER KIT	
ITEM	COMPONENT	Wedge Mount	Camlock Mount
1	MIRROR ASSEMBLY (INCLUDES COMPASS POD)	1	1
2	POWER WIRE HARNESS	1	1
3	WIRE TAP	1	1
4	TEMPERATURE SENSOR	1	1
5	TEMPERATURE SENSOR WIRE HARNESS	1	1
6	WIRE TIE	9	9
7	OPERATION CARD, (NOT SHOWN, FOR GLOVE BOX)	1	1
8	REPLACEMENT WEDGE BUTTON FOR WINDSHIELD	1	0
9	REPLACEMENT CAMLOCK MOUNT SPRING	0	1



TOOLS REQUIRED

Clean rag
Flashlight

10 mm socket wrench
1/8" (small) flat screwdriver
wire cutter

multi-meter electrical tester
pliers
#20 Torx screw driver (wedge only)

INSTALLATION PRECAUTIONS / NOTES:

- Do not use excessive force when removing OE mirror from windshield. The windshield button may separate from the windshield or the windshield may break.
- Do not handle EC mirror by the plastic compass pod below the mirror mount.
- Do not route wiring over sharp metal edges or allow to be pinched behind trim to avoid causing an electrical short or break in the wire.
- Manufacturer not responsible for installation related damage to vehicle.
- Contact original purchase source if additional information is desired regarding these products.
- For installation situations that installer is not familiar with, a qualified installation technician or mechanic should be consulted for assistance.
- Use wire ties to hold wires away from hot engine and critical parts such as brake systems.

1.0 VEHICLE PREPARATION

- 1.1 Inspect mirror for damage.
 - Place parts on a clean, padded surface.
 - If the vehicle is equipped with an anti-theft radio, the security code must be recorded prior to disconnecting the battery cable. The code should be re-entered after reconnecting the negative battery terminal.
 - Record programmed radio stations.

2.0 REMOVE ORIGINAL EQUIPMENT (OEM) REARVIEW MIRROR

CAUTION: DO NOT USE EXCESSIVE FORCE WHEN REMOVING MIRROR FROM WINDSHIELD. THE WINDSHIELD BUTTON MAY SEPARATE FROM THE WINDSHIELD OR THE WINDSHIELD MAY BREAK.

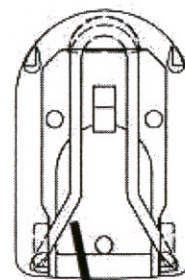
- 2.1 Wedge mount mirror removal procedure: (Common Method for screwless mount)
Note that there are several versions of mirror mount systems.
If unfamiliar with mirror removal, seek professional assistance.
 - Using a small 1/8" (4 mm) flat blade screwdriver, insert the flat end into the opening at the bottom of the mirror mount at the windshield.
 - Slide the screwdriver into the center of the mirror mount until resistance is felt.
 - Gently apply a small amount of additional upward force to lift away locking spring in the mount.
 - While still applying upward pressure with the screwdriver, grasp the mirror bracket and wiggle side to side. Lift mirror up toward the headliner and off the windshield mount button.
- 2.2 Camlock Mirror Removal procedure: (Common Method)
 - Grasp the base of the mirror.
 - Rotate 90 degrees left or right.
 - Slide mirror downward toward dash to remove.

3.0 INSTALL NEW INTERIOR MIRROR

- 3.1 Wedge Mount Mirror Installation:
 - Holding the mirror assembly by the bracket tube and mirror head, slide the mirror bracket over the mirror button on the windshield.
 - Rock mirror side to side to aid installation until mirror fits tightly onto mirror button.
 - Use #20 Torx screwdriver, to tighten locking screw through hole in bottom of compass Pod below mirror mount.

NOTE: If mirror does not fit mirror button on windshield, purchase Rearview Mirror Adhesive kit from auto supply store and mount wedge style mirror button supplied with kit. Follow adhesive supplier directions for button installation.

- 3.2 Camlock Mount Mirror Installation:
 - Remove Retainer spring from Windshield retainer button.
 - Replace with new spring from kit.
 - Hold auto-dimming mirror up to windshield retainer button as if mirror is installed.
 - Rotate the mirror 90 degrees right or left from installed position.
 - Slide the mirror base mount into the retainer button on the windshield moving up from bottom of button.
 - Rotate the mirror back to the final installed position.



**Mirror Button
Retainer Spring**

4.0 TEMPERATURE SENSOR INSTALLATION

- 4.1 Locate the temperature sensor between the front of the radiator and the front bumper. (See Fig. 4.1) Locate edge of sheet metal or plastic shield, and slide metal clip over edge until secure.
- 4.2 Sensor should be in the flow of fresh air. Do not locate next to a heated engine component.
- 4.3 Route the temperature sensor wiring harness.
 - Route the two conductor wires up to driver's side dash wall.
 - Pass the sensor wire through the dash. Verify that pass through location will not damage vehicle parts on either side of dash wall.
 - Secure the wires to other cables in the engine compartment with the cable ties.
 - Route along the driver's side of dash and up "A" pillar. Continue to route wire over to the rearview mirror. (See Fig. 4.2)

Fig. 4.1 Temperature Probe Location - Example

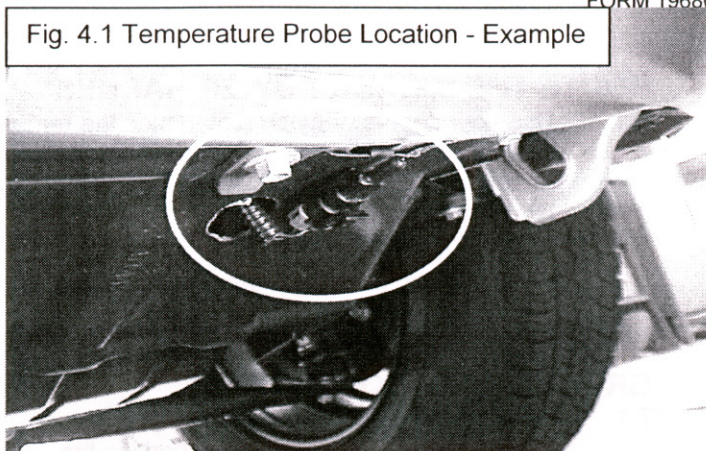
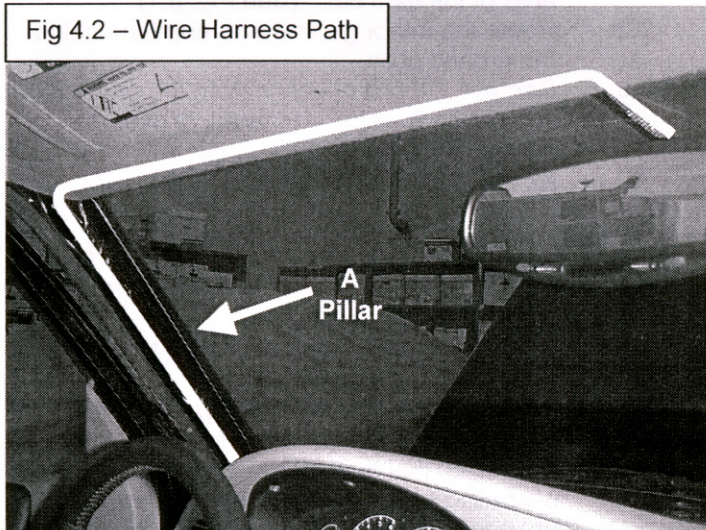


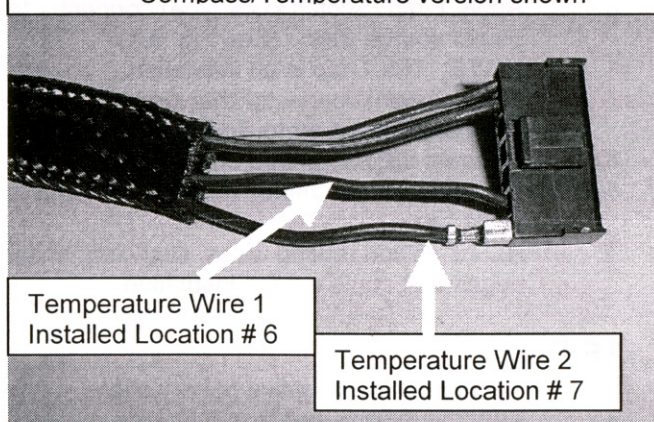
Fig 4.2 – Wire Harness Path



5.0 CONNECTING TEMPERATURE HARNESS TO MIRROR

- 5.1 Feed the temperature sensor wires through the mesh sleeve, which is already on the power harness.
- 5.2 Temperature Harness Connection –
 - Connect terminated temperature harness wires into the 7-pin mirror connector block pin on the power harness. (See Fig 5.1) Pin designations are located on the rear face on the connector.
 - Temperature connections are not polarity specific.

Fig 5.1 – Temperature Harness to Connector
Compass/Temperature version shown



TEMPERATURE HARNESS CONNECTION LOCATION		
Mirror with Compass / Temperature	Pin 6	Pin 7
Mirror with Compass/Temperature/Map Lamps	Pin 4	Pin 5

- 5.3 Plug the wire harness 7-pin connector into the back of the mirror.

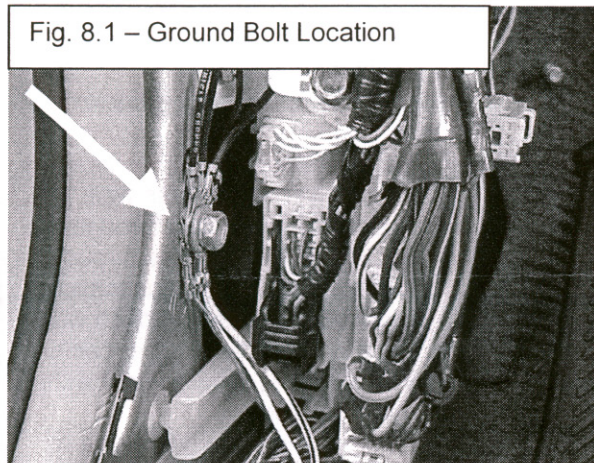
6.0 ROUTE THE MIRROR POWER HARNESS

- 6.1 Use your fingers or nylon tool to tuck the remaining wire harness between the headliner and the roof. It may be necessary to loosen the sunvisor attachment screws to pull down the front of the headliner.
- 6.2 Route the wire harness along the front edge of the headliner to the driver's side 'A' and down to area below dash. (See Fig 4.2)
 - Using the cable ties, secure the complete mirror wire harness to the OEM wiring harness on the driver's side pillar.

7.0 GROUND WIRE CONNECTION

- 7.1 Locate existing bolt or screw that is in contact with the vehicles metal body in the area of the fuse box. (See Fig. 8.1)
- 7.2 Route the mirror ground wire ring terminal to the ground point.
- 7.3 Remove the bolt or screw from the ground point and install the ring terminal over the ground bolt/screw.
- 7.4 Reinstall and tighten the fastener.

Fig. 8.1 – Ground Bolt Location



8.0 12-VOLT (POSITIVE) WIRE CONNECTION

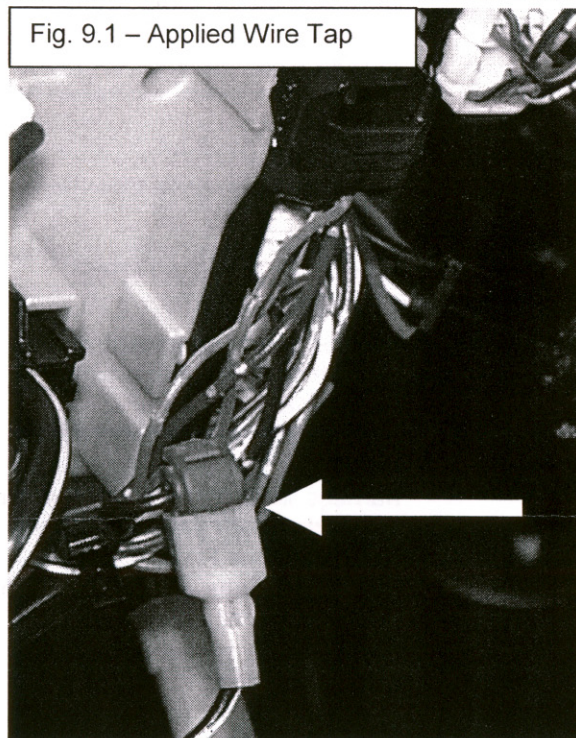
- 8.1 Route the 12-volt (spade terminal) wire to an ignition controlled wire.

NOTE: If mirror remains on at all times, it will drain the car's battery.
- 8.2 Power source – Using a standard continuity tester or multi-meter, check for wire exiting fuse block that tests positive for being controlled by the ignition switch. The power must turn off when the ignition is in the OFF position.
- 8.3 Disconnect battery ground cable from battery.
- 8.4 Apply T-tap (Scotch Lock type) connector to power source wire. (See Fig. 9.1)

NOTE: The T-tap is an insulation displacement connector that does not require the insulation be removed prior to installation.
- 8.5 Connect the mirror wire to T-tap.
- 8.6 Secure the loose mirror wire harness with cable ties.

NOTE: When routing wires, stay clear of sharp edges that could cut the insulation.

Fig. 9.1 – Applied Wire Tap



9.0 TESTING

- 9.1 Reconnect the negative battery cable.
- 9.2 Turn the ignition switch to ON.
- 9.3 With the vehicle in a fairly well lit area, perform the following:
 - Push in left switch to turn auto-dimming ON/OFF. Auto dimming is enabled when green LED is on. See section 11 for additional operation instructions as needed.
 - Cover the forward-looking photocell located below the wire harness connection on the back side of the mirror (a dark cloth or towel will work).
 - After a few seconds, the mirror will begin to darken (the time may vary with ambient light levels).
 - Remove the cover from the forward photocell and the mirror will begin to clear.
 - The test is now complete.

10.0 FINAL ASSEMBLY

10.1 Reinstall all removed components.

- Re-enter the security code and programmed radio stations.
- Place the operation instruction card (Not available for mirror with Map Lamp) in the vehicle glove box in the vehicle owner's manual.

11.0 OPERATION

11.1 Compass and Temperature Mirror – Switch Functions

For mirrors with Map Lamp, see Step 12.2

LEFT BUTTON	Push and Release	Turns Auto-Dimming feature OFF/ON. Green LED indicates feature ON when lit.
	Push and Hold Approximately 4 seconds	Compass Calibration mode. See step 12.3
RIGHT BUTTON	Push and Release	Changes Temperature Reading between °F, °C and NO Display. Repeat to cycle to next display function.
	Push and Hold Approximately 4 seconds and release.	Compass Zone Change Mode: • Refer To Compass Calibration Zone Map below (See Fig. 12.1) to verify compass zone setting for your geographical location. • Push and hold the right button until "ZONE" appears in the display. • Push same button repeatedly until the desired compass zone number is shown. • The display will change back to the compass direction after three seconds if the button is not activated.

11.2 Compass and Temperature Mirror with Map Lamps – Switch Functions

For mirrors without Map lamp feature see section 12.1

LEFT BUTTON	Push and Release	Turns Left Map lamp ON/OFF
	Push and Hold Approximately 4 seconds	Turns Auto-Dimming feature OFF/ON. Green LED indicates feature ON when lit.
	Push and Hold Approximately 8 seconds	Compass Calibration mode. See step 12.3
RIGHT BUTTON	Push and Release	Turns Right Map lamp ON/OFF.
	Push and Hold Approximately 4 seconds and release.	Changes Temperature Reading between °F, °C and NO Display. Repeat Hold to cycle to change display to next function.
	Push and Hold Approximately 8 seconds and release	Compass Zone Change Mode: • Refer To Compass Calibration Zone Map below (See Fig. 12.1) to verify compass zone setting for your geographical location. • Push and hold button until "ZONE" appears in the display. • Push same button repeatedly until the desired compass zone number is shown. • The display will change back to the compass direction after three seconds if the button is not activated.

12.0 COMPASS OPERATION

- 12.1 Compass Zone Adjustment - **NOTE:** The zone setting is factory preset to Zone 8. Refer to Compass Calibration Zone Map (See Fig. 12.1) to verify the correct compass zone setting for your geographical location.
- 12.2 To change the zone setting,
- Push and hold the right button until "ZONE" appears in the display.
 - Push same button repeatedly until the desired compass zone number is shown. The display will change back to the compass direction after three seconds if the button is not activated.

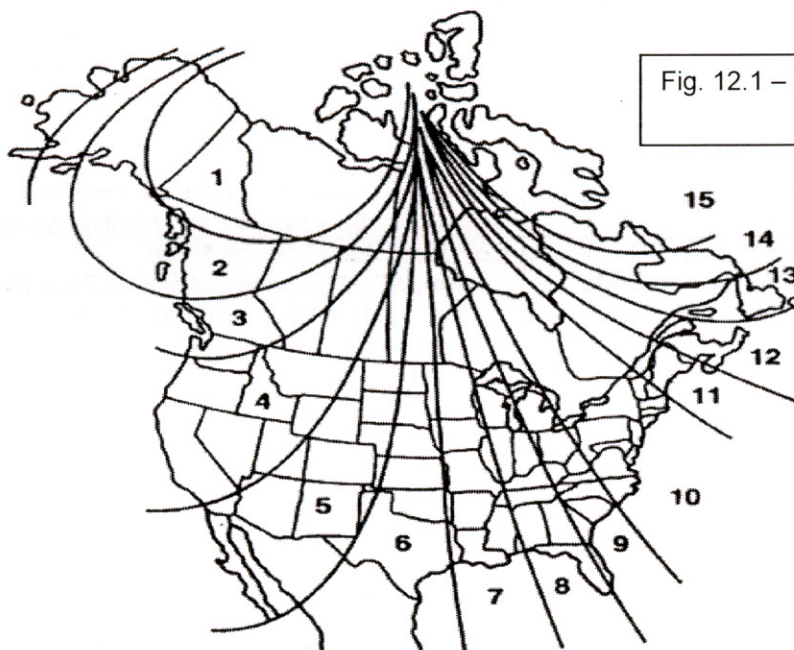


Fig. 12.1 – Compass Zone Map

- 12.3 **Calibration Adjustment -- NOTE:** The compass function calibrates itself under normal driving and turning conditions. There is not a need to manually calibrate the compass. If calibration is desired, follow these instructions:
- For optimum calibration, switch off all nonessential electrical accessories (rear window defrost, heater/air conditioning, map lamps, wipers, etc.) and ensure all doors are shut.
 - Drive to an open, level area away from large metallic objects or structures.
 - Push the button to the left of the display for until "CAL" icon appears in the display. Release the switch to enter the calibration mode.
 - Drive slowly in a circle until the "CAL" icon disappears in the display (about two or three circles). The compass is now calibrated

13.0 TEMPERATURE OPERATION

The temperature sensor is located in the front bumper area. Due to its location, the sensor can be affected by road or engine heat during idling or slow driving. Adaptation to ambient temperature takes place in steps through time filtering and depends on the prevailing driving conditions and amount of temperature change. Because of the filtering, the display will take approximately three minutes to update to ambient temperature if the current temperature is higher than the previous time the vehicle was turned on.

* WARNING

The outside temperature indicator is not designed to serve as an Ice warning device and is therefore unsuitable for that purpose. Indicated temperature just above the freezing point does not guarantee that the road surface is free of ice.

Compass/ Temperature EC Mirror Trouble Shooting Guide

CONDITION	POSSIBLE CAUSE	ACTION
Mirror face does not darken.	- EC function is not on. - Mirror is not receiving power. - Light Sensor is blocked.	Use pinpoint test A.
Mirror face is always dark.	Light Sensor is blocked.	Use pinpoint test B.
Compass display is inaccurate.	- Compass pod is not mounted properly. - External magnetic influence is present. - Zone setting is incorrect. - Compass pod was not calibrated.	Use pinpoint test C.
There is no compass display.	- Compass display is switched off. - Mirror is not receiving power. - Compass pod is not connected to mirror.	Use pinpoint test D.
"OC" or "SC" is shown in temperature display.	- Temperature sensor not connected. - Damaged temperature sensor. - Damaged temperature harness.	Use pinpoint test E.
Temperature reading is inaccurate.	- User is not familiar with temperature filtering. - Sensor is mounted in wrong position. - Damaged temperature sensor - Damaged temperature harness	Use pinpoint test F.
Some segments of display do not work.	Damaged mirror head.	Use pinpoint test G.
Display does not dim at night.	Damaged mirror head.	Use pinpoint test H.
Display is always dim.	- Light sensor opening blocked. - Damaged mirror head.	Use pinpoint test I.

PINPOINT TEST A: MIRROR FACE DOES NOT DARKEN

NOTE: Mirror will only darken when forward facing (toward windshield) light sensor reads low light (night conditions) and rear facing (toward driver) light sensor is exposed to light source such as head lights through rear window.

TEST STEP	RESULT	ACTION
A1: Is green LED on?	YES NO	Go to A2. Push left button. Verify green light. Go to A2. If no light function, Go to A3.
A2: With glass side of mirror in lighted environment, cover round light sensor opening in back of mirror. Verify that rear facing light sensor to right of display is not blocked from light source. Does mirror face dim?	YES NO	Test finished. Mirror functional. Go to A3.
A3: Remove 7-pin connector from back of mirror. Turn ignition to on position. Measure voltage across pins 1 & 2 with positive lead on pin 1. Is voltage between 9V and 16V?	YES NO	Replace mirror head. Correct power harness connection to vehicle. Refer to installation instructions. Go to A1.
A4: Verify the correct power harness connection to vehicle. Refer to installation instructions. Is power harness installed correctly?	YES NO	Replace mirror head. Reinstall harness following instructions. Go to A1.

PINPOINT TEST B: MIRROR FACE IS ALWAYS DARK

TEST	RESULT	ACTION
B1: Is anything blocking the forward facing light sensor opening, (opposite from glass)? Mirror should be evaluated in daylight conditions.	YES NO	Remove obstruction. Verify that mirror changes to high reflectance, (mirror clears). Replace mirror head.

PINPOINT TEST C: COMPASS DISPLAY IS INACCURATE

TEST	RESULT	ACTION
C1: Is pod snapped onto mount?	YES NO	Go to C2. Snap pod on. Go to C2.
C2: Is external magnetic influence (roof antenna, etc.) close to mirror?	YES NO	Move external magnet to location further from mirror. Go to C3.

C3: Is zone set correctly? See setting zone. Use procedure included in installation instructions.	YES NO	Go to C4. Set compass zone.
C4: Has compass been calibrated?	YES NO	Replace mirror head. Calibrating compass. Procedure included in installation instructions. Verify compass reading is accurate.

PINPOINT TEST D: THERE IS NO COMPASS DISPLAY

TEST	RESULT	ACTION
D1: Press right most button. Does display turn on?	YES NO	Test finished. Mirror is functional. Go to D2.
D2: Test per A3. Is voltage between 9V and 16V?	YES NO	Go to D3. Test per A4 then go to D1.
D3: Is the harness from the mirror head connected to the pod?	YES NO	Replace mirror head. Plug in compass connector and verify that display turns on.

PINPOINT TEST E: "OC" OR "SC" SHOWN IN TEMPERATURE DISPLAY

TEST	RESULT	ACTION
E1: Is the temperature sensor connected to the temperature harness?	YES NO	Go to E2. Install temperature sensor, then verify that temperature display no longer reads "OC".
E2: Remove 7-pin connector from back of mirror. At room temperature use ohm meter to measure the resistance through Temperature Harness. Pins 6 & 7 for Mirror without Map Light. Pins 4 & 5 for mirror with Map Lights. Is the resistance between 9 k-ohms and 11k-ohms?	YES NO	Replace mirror head. Go to E3.
E3 Measure resistance on temperature probe. Is the resistance between 9k-ohms and 11k-ohms?	YES NO	Replace temperature harness Replace temperature probe.

PINPOINT TEST F: TEMPERATURE READING IS INACCURATE

NOTE: The temperature sensor is located in the front bumper area. Due to the sensor's location, the sensor can be affected by road or engine heat during idling or slow driving. Adaptation to ambient temperature takes place in steps through time filtering and depends on the prevailing driving conditions and amount of temperature change. Because of the filtering, the display will take approximately three minutes to update to ambient temperature if the current temperature is higher than the previous time the vehicle was turned on.

TEST	RESULT	ACTION
F1: Refer to temperature operation description, in NOTE above, do symptoms fit description?	YES NO	Test finished. Mirror is functional. Go to F2.
F2: Is probe mounted per installation instructions?	YES NO	Go to F3. Reinstall probe, per instructions, then verify reading is accurate.
F3: Test per Pinpoint Test E. I Is temperature reading still inaccurate?	YES NO	Replace mirror head. Test is finished. Mirror is functional.

PINPOINT TEST G: SOME SEGMENTS OF DISPLAY DO NOT WORK

TEST	RESULT	ACTION
G1: Turn ignition to on position and watch display. Do all segments light up?	YES NO	Test is finished. Mirror is functional. Replace mirror head.

PINPOINT TEST H: DISPLAY DOES NOT DIM AT NIGHT

TEST	RESULT	ACTION
H1: Cover both forward and rear facing light sensor openings. Does display dim after 10 sec?	YES NO	Test is finished. Mirror is functional. Replace mirror head.

PINPOINT TEST I: DISPLAY IS ALWAYS DIM

TEST	RESULT	ACTION
I1: Are light sensor openings in front and back of mirror blocked?	YES NO	Remove blockage. Replace mirror head.

ONE YEAR LIMITED WARRANTY

Donnelly Corporation ("Donnelly," or the "company") warrants to the original purchaser (the "owner") that the product manufactured by Donnelly (the "product") will be free of defects in material and workmanship for a period of one year from the date of purchase.

Under this warranty, the company will provide one of the following remedies in the case of defect (the choice of remedy to be solely at the option of the company): (i) the company will furnish an equal product or component in exchange for the defective product; or (ii) the company will repair any defect in the product in material or workmanship. No agent, representative, dealer or employee of the company has the authority to increase or to alter obligations or limitations of this warranty.

All defective products must be returned to the retailer where they were purchased OR returned postage pre-paid, with a copy of the original sales receipt to: Donnelly Corp.; Attn: Consumer Products Returns; 620 East Ellis Road; Norton Shores, MI; 49441. A Return Material Authorization (RMA) Number must be obtained from Donnelly's Customer Care Center (866.416.3470) before any products may be shipped and must be clearly written in large characters on the outside of the package before shipment. If a RMA number is not clearly indicated on the outside of the return package, the company reserves the right to refuse shipment.

This warranty covers normal use and installation in the manner described in the included directions. Donnelly does not warrant and is not responsible for defects or damages resulting from the actions of the owner or any third parties, including, but not limited to, the following:

1. Damage caused by failure to provide a suitable installation or operating environment for the product;
2. Damage occurring during shipment (other than original shipment from the company to the owner);
3. Damage caused by accident or misuse of the product, such as impact with other objects, dropping, falls, spilled liquids or immersion in liquids;
4. Damage caused by improper wiring or other installation error;
5. Damage resulting from a collision or other accident involving the vehicle in which the product has been installed;
6. Damage caused by unauthorized attachments, alterations, or modifications of or to the product;
7. Damage caused by the use of the product for purposes other than those for which it is intended to be used;
8. Damage from improper installation or improper maintenance of the product; and
9. Damage caused by any other abuse, misuse, mishandling or misapplication of the product.

10. In no event shall Donnelly be liable for incidental or consequential damages such as labor or loss of use.

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