



## GENUINE PARTS

### INSTALLATION INSTRUCTIONS

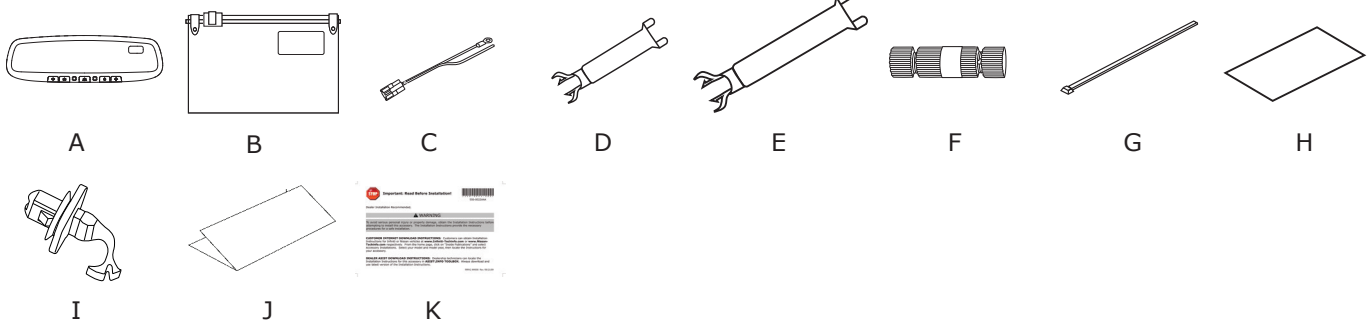
**DESCRIPTION:** Auto-Dimming Compass HomeLink® Mirror Kit

**APPLICATION:** Versa Sedan (2012)

**PART NUMBER:** 999L1 VW102

**KIT CONTENTS:**

Item	Qty.	Part Description	Service Part Number
A	1	EC Compass HomeLink® Mirror	999L1 VZ000
B	1	Parts Kit	999L1 VW103
C	1	Harness Assembly - Power and Ground	
D	1	Wire Cover - Short	
E	1	Wire Cover - Long	
F	1	Posi-tap	999M1 VT000
G	7	Wire Tie	
H	9	Foam Tape	
I	2	A-Pillar Clip	76988 3DN0A
J	1	HomeLink® User Guide	
K	1	II Download Instructions	999V2 AW000



**TOOLS REQUIRED:**

Phillips Screwdriver	10mm Socket Wrench	Clean Rag
3mm Flat Scredriver	Side Cutters	Shop Light
T-20 Torx Head Driver	Long Needle Nose Pliers	
Panel Removal Tool		

**PRE-INSTALLATION WARNINGS, CAUTIONS, CRITICAL STEPS, and NOTES:**

- Dealer Installation Recommended. Instructions may refer to Service Manual.
- For HomeLink Troubleshooting refer to page 14 or call 1-800-355-3515 for assistance.

### CAUTION

- This is a universal kit so all parts may not be used.
- Place removed vehicle trim components in a clean, dry area to prevent damage.

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## INSTALLTION PROCEDURE:

- 1) Apply parking brake.
- 2) Turn ignition switch to "ON" position.
- 3) Confirm the vehicle is no longer in the default shipping state (extended storage switch pulled up and BCM in transit mode). Failure to confirm the vehicle has been removed from this state will result in loss of normal vehicle operation. The confirmation requires two checks:
  - a) Locate the extended storage switch in the cabin fuse block. Once located, check that it is in the "customer" position (Figures A and B).

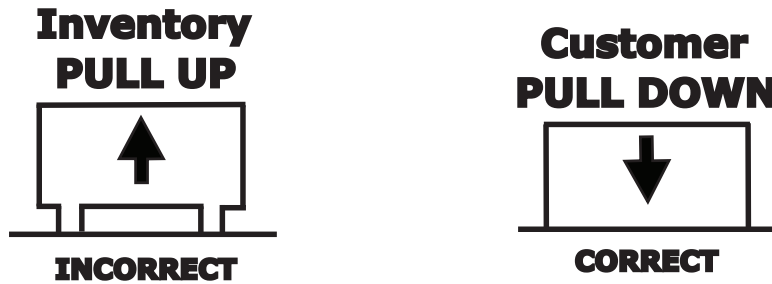


Figure A

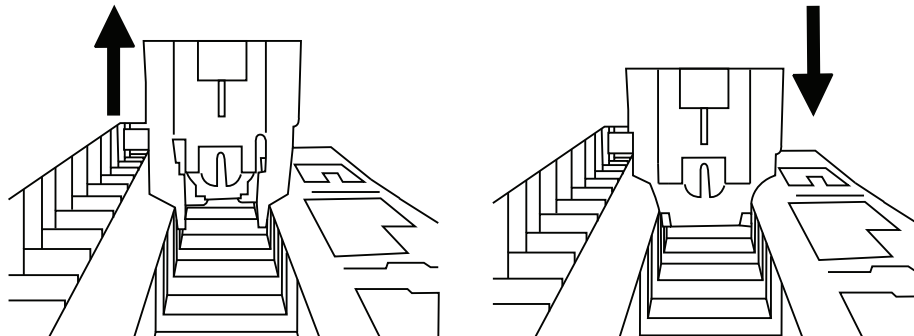
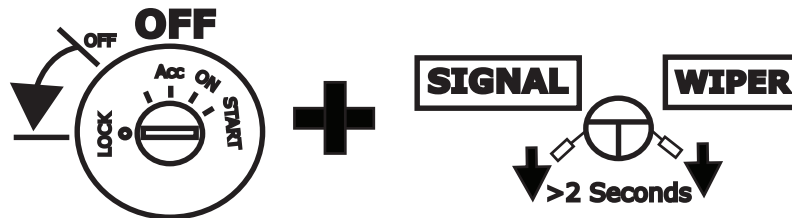


Figure B

- b) Turn the ignition switch from "OFF" to "ON" position. If turn indicators illuminate for approximately 1 minute, the vehicle is in shipping mode. To exit shipping mode, return the ignition switch to the "OFF" position. Simultaneously push the wiper and turn signals stalks downward and hold for 2 seconds (Figure C).

Figure C



- 4) Record the customer radio presets and other presets as required.

Presets	1	2	3	4	5	6	

- 5) Put shift lever in "P" position for A/T and CVT or "1st" for M/T.
- 6) Turn ignition switch to "OFF" position.

## INSTALLTION PROCEDURE:

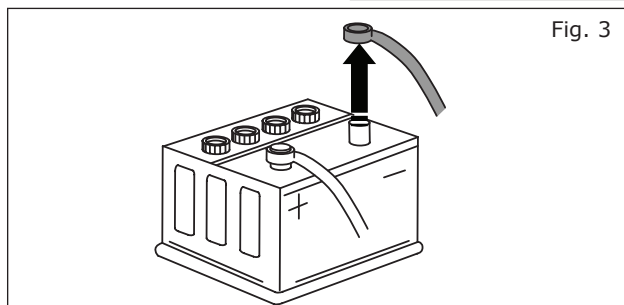
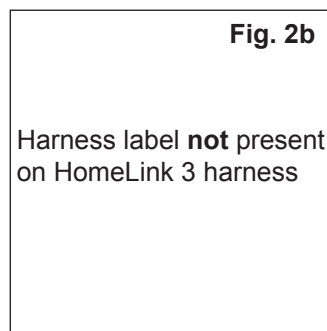
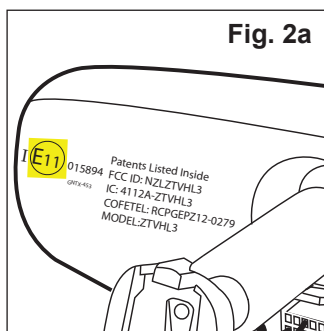
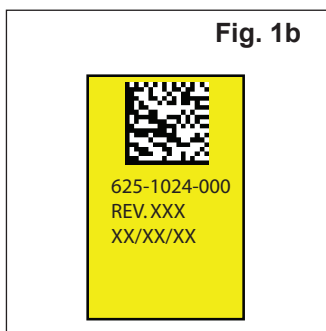
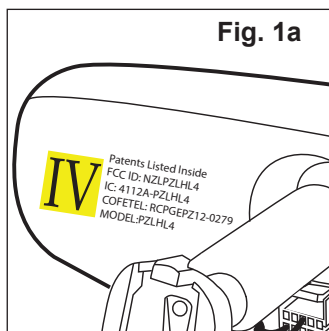
- 7) For service parts only, identify the generation of the mirror as either HomeLink 3 or HomeLink 4 by looking at laser marking on the back of the mirror. HomeLink 4 can be identified with a large "IV" as shown in (Fig. 1a) and by a yellow label on harness assembly (Fig. 1b). HomeLink 3 can be identified with a large "E11" with a circle as shown in (Fig. 2a). No harness label is present on HomeLink 3 harness assembly. **If replacing a HomeLink 3 mirror, the harness will also need to be replaced during installation.**

HomeLink 4 Mirror

HomeLink 4 Harness Label

HomeLink 3 Mirror

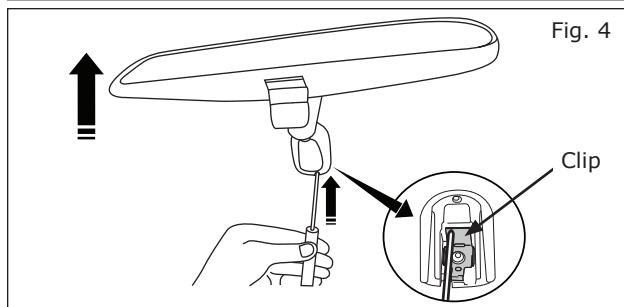
HomeLink 3 Harness Label



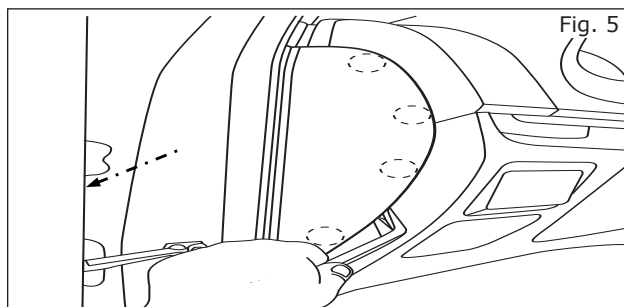
- 8) Disconnect the negative battery terminal.

## CAUTION

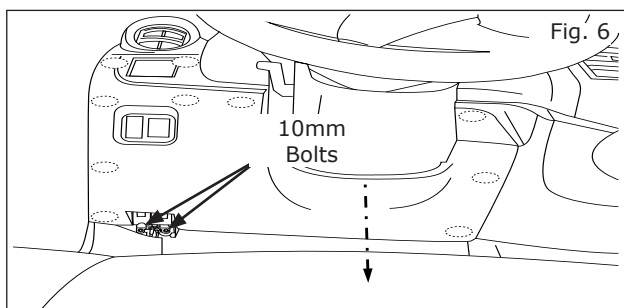
**Do not use excessive force when removing OE mirror from windshield. The window button may separate from windshield or the windshield could break.**



- 9) Removal of OE rearview mirror.
- c) Slide flat end of 3mm screwdriver into opening at bottom of mirror mount until resistance is felt.
  - d) Apply additional upward force and twist screwdriver 90 degrees to lift lock spring.
  - e) Lift mirror upward off mirror mount while applying pressure with screwdriver.
  - f) Discard Mirror

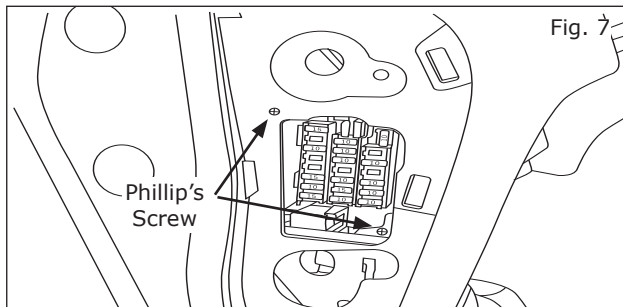


- 10) Remove driver side instrument side mask.
- g) Using panel removal tool, disengage clips on driver side instrument side mask and remove.

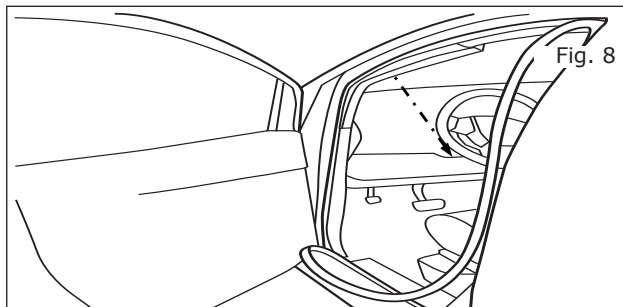


- 11) Remove driver side lower dash panel
- h) Remove two 10mm bolts from driver side of lower dash panel, near hood release lever.
  - i) Pull outward on driver side lower dash panel to loosen.
  - j) Unplug the two connectors and let the panel rest on the floor.

## INSTALLTION PROCEDURE:



- 12) Partially remove junction block from driver side dash location.
  - a) Using Phillips screwdriver, remove 2 screws and loosen junction block.

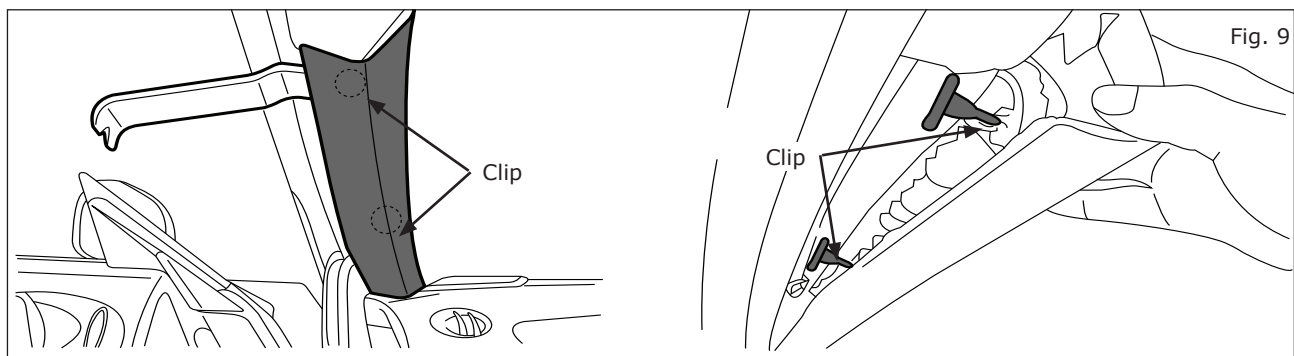


- 13) Using panel removal tool, loosen driver side weather strip. Remove from top of A-pillar.

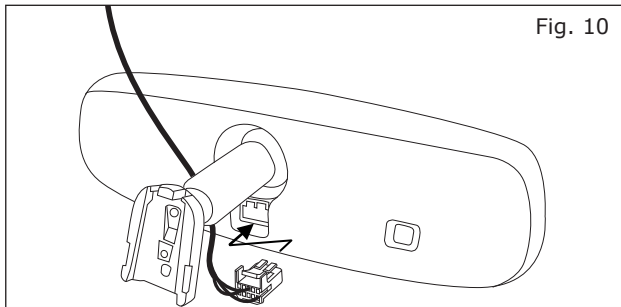
- 14) Disengage driver side front pillar garnish fixing clip and metal clip with panel removal tool, cut clip's with side cutters and then remove front pillar garnish.
  - b) Remove and discard the clips from the vehicle.

## ⚠ CAUTION

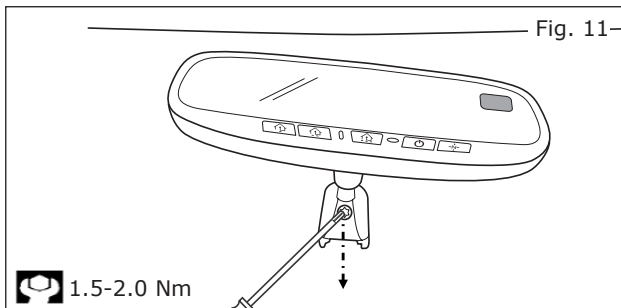
- Exercise caution when removing and installing LH front pillar garnish due to side airbag placement. Reference Figure 8 below for further detail.
- Do **NOT** re-use LH front pillar garnish clips. LH front pillar garnish clips (P/N 76988 3DN0A) **MUST** be replaced during re-installation of garnish.



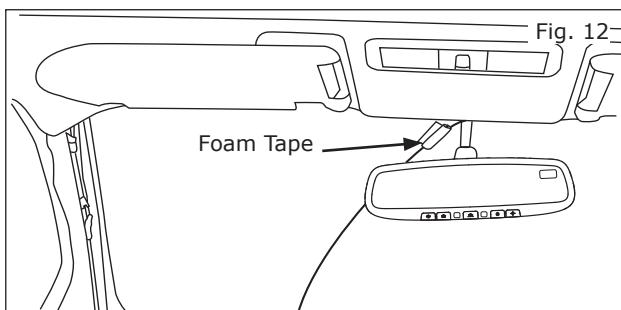
## INSTALLTION PROCEDURE:



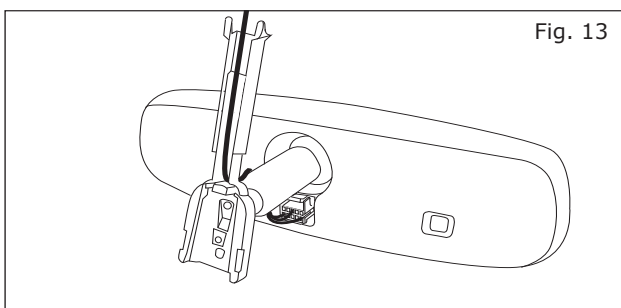
- 15) Install Auto-Dimming mirror.
- a) Plug harness connector into back of the mirror, pressing firmly until a "click" is heard. Pull GENTLY on the harness to confirm the harness is seated completely.



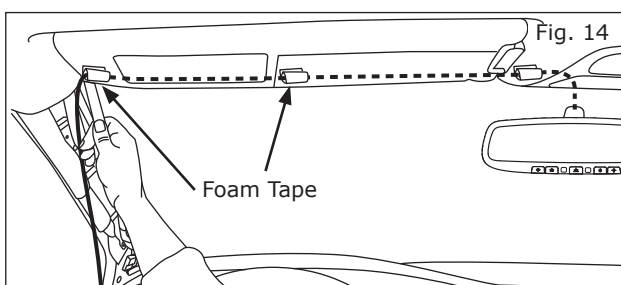
- 16) Slide mirror base over button on windshield.
- b) Using a T-20 torx head driver, tighten the screw on the mirror mount to **1.5 - 2.0 Nm (13.25-17.75 in-lb)**.



- 17) Wrap 1 piece of foam tape around harness and using panel removal tool, tuck between headliner and roof above mirror.

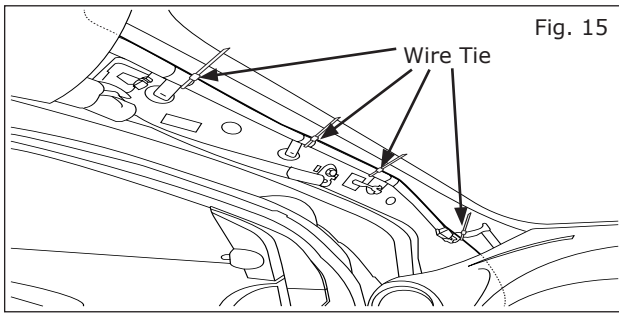


- 18) Route mirror harness into groove of short (item D) wire cover assembly and attach to mirror mount.
- c) Slide forks on top of wire cover, into headliner so that the prongs of wire cover are under headliner.



- 19) Wrap 1 piece of foam tape around harness at center of driver side sun visor and where headliner bends towards driver side door.
- d) Using panel removal tool, tuck the harness between headliner and roof.

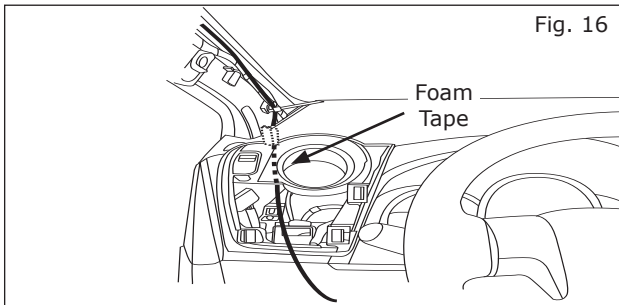
## INSTALLTION PROCEDURE:



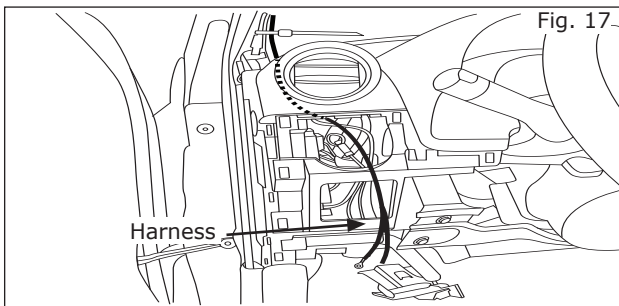
- 20) Route harness down driver side A-pillar and secure to existing vehicle harness with 4 wire ties.  
a) Trim the end of all 4 wire ties.

### NOTE:

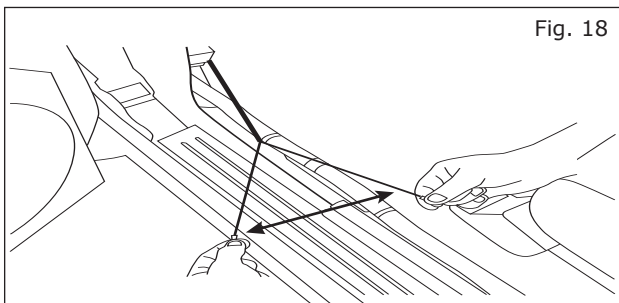
**Be sure to route the harness over the top of the existing wire harness (conduit) as shown in the adjacent figure.**



- 21) Wrap 1 piece of foam tape around mirror harness at bottom of A-pillar to protect from sharp edges.



- 22) Continue routing harness through center dash opening.

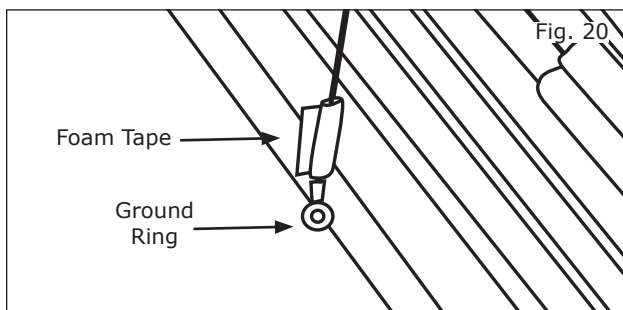
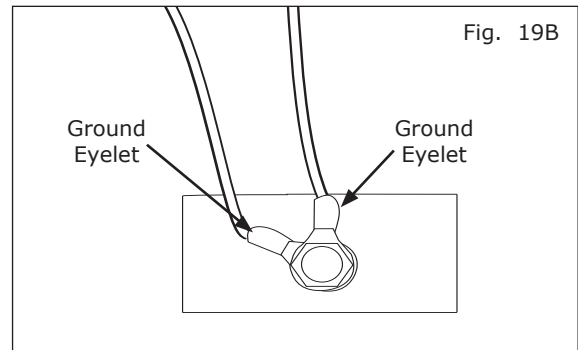
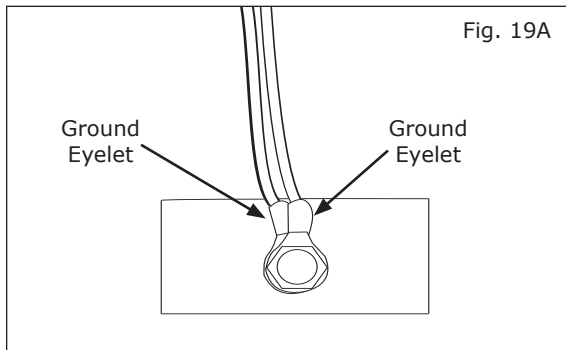


- 23) Pull power and ground wires apart approximately 12 inches.

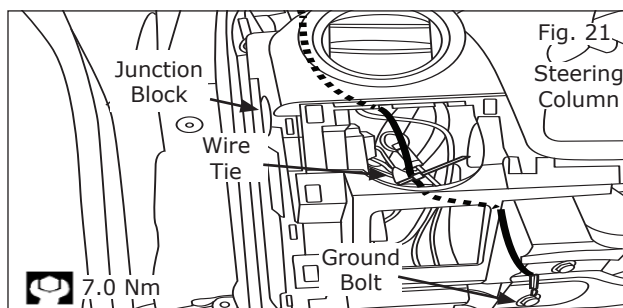
## INSTALLTION PROCEDURE:

### ⚠ CAUTION

- When stacking multiple ground eyelets, DO NOT stack the stems of the eyelet. **(Fig. 19A)**
- When stacking multiple ground eyelets, leave a 30° spacing between stems of the eyelet. **(Fig. 19B)**



- 24) Apply foam tape to the end of the ground wire, just above the ring. Be sure to leave the ring exposed.



- 25) Locate upper 10mm ground bolt in driver side dash area, below steering column, and remove.
- a) Install ring terminal from Black wire of mirror harness over ground bolt and reinstall, tightening to **7.0Nm (62 in-lb)**.
  - b) Secure harness to existing vehicle harness with 1 wire tie.

## INSTALLTION PROCEDURE:

**CAUTION**

- Color(s) given in illustration(s) are for reference only. Use location(s) where color deviates.
- If a vehicle wire is being used by another accessory and a posi-tap is present, tap the accessory wire NOT the vehicle wire.

- 26) Secure gray end of the wire tap to **Blue Wire (Fig. 22)** in fuse panel area in driver side center dash area.
  - a) See steps 27 - 31 for wire tap installation instructions.

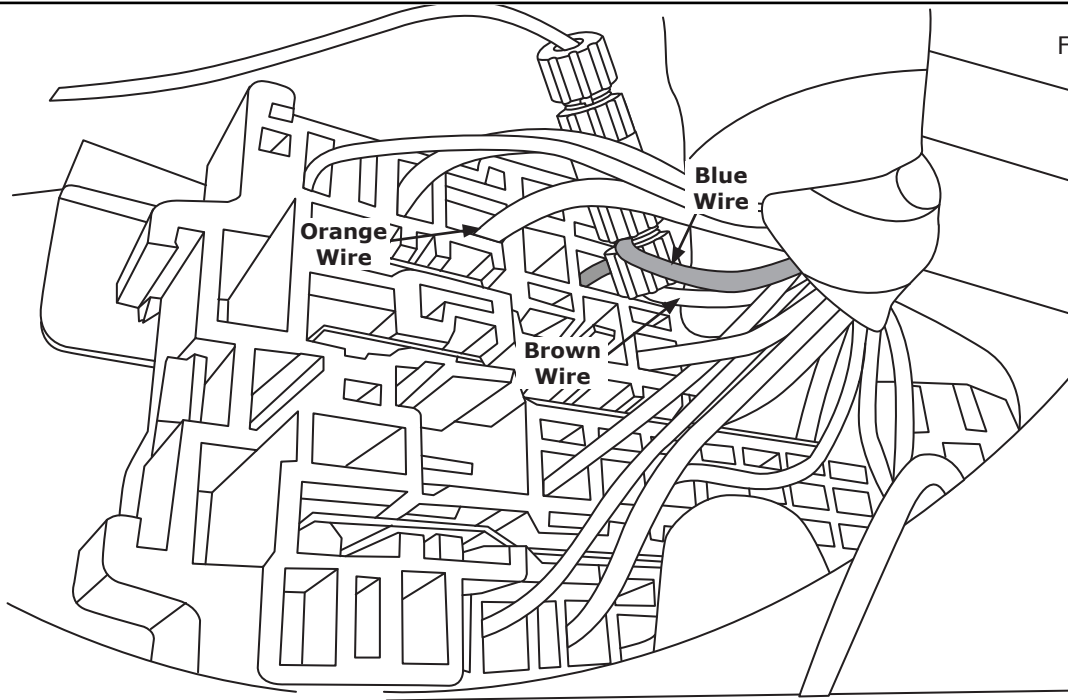
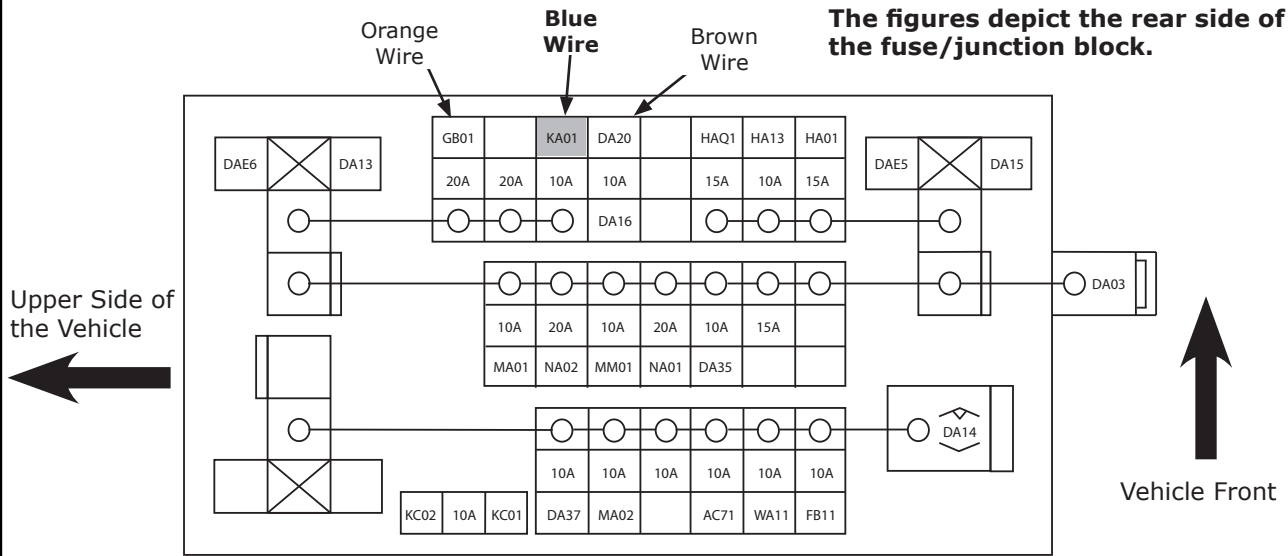


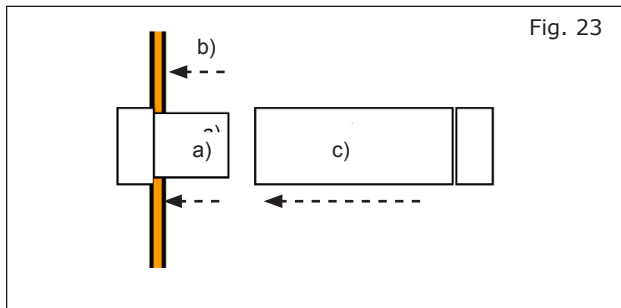
Fig. 22

**NOTE:**  
The figures depict the rear side of the fuse/junction block.





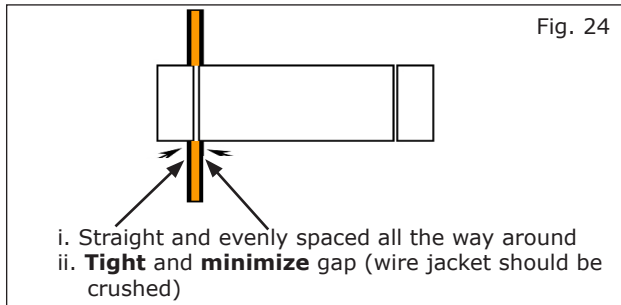
## INSTALLTION PROCEDURE:



- 27) Identify and confirm (test if necessary) the correct vehicle wire to be tapped.
- 28) Tap vehicle wire.
  - a) Remove cap (slot side) from tap body.
  - b) Slide cap around vehicle wire.
  - c) Tighten the tap **TIGHT** with finger pressure.

### NOTE:

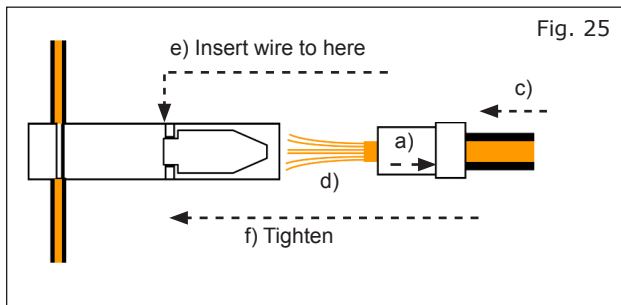
**Do not re-use the tap for subsequent reinstallation. Figures are not to scale.**



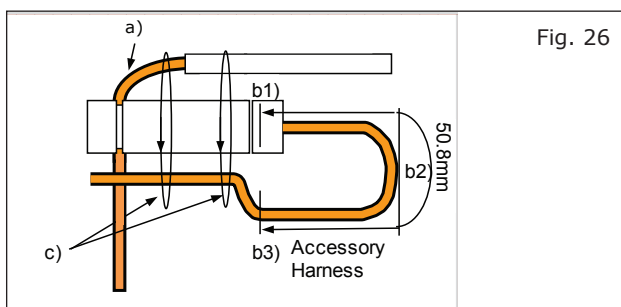
- 29) Inspect the tap to ensure correct installation.

### NOTE:

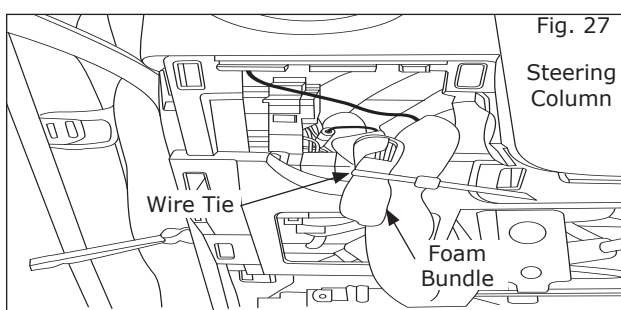
**Avoid putting pressure on the vehicle wire and tap for the remainder of the installation.**



- 30) Tap accessory wire.
  - d) Remove tap (non-pierce) side from tap.
  - e) Remove the protective stub from the wire.
  - f) Insert wire through the non-pierce side opening.
  - g) Spread the individual strands into fan shape.
  - h) Insert wire into the tap body and ensure that it is all the way in.
  - i) Tighten the tap **TIGHT** with finger pressure.



- 31) Forming strain relief loop (always required). (**Fig. 26**)
  - j) Gently bend the end of the pierced wire (where it exits the cap) down toward the body of the posi-tap.
  - k) On the tapped wire of the non-pierce side; starting at point b1) measure 50.8mm(2in.) to point b2). Make the first bend of the loop b2), half the distance measured 25.4mm(1in.), and up toward the body of the posi-tap, make the second bend of the loop b3).
  - l) Secure the pierced wire on the heat shrink side and the tapped wire on the non-pierce side to the body of the tap with electrical tape ( $\geq 2$  Revolutions)



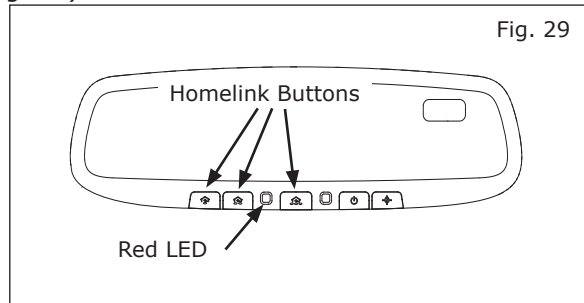
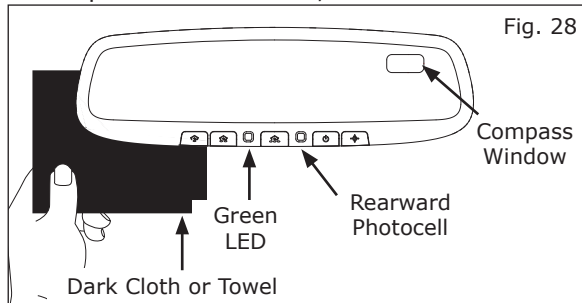
- 32) Bundle excess harness (**Fig. 27**)
  - m) Wrap bundle with 2 pieces of foam tape.
  - n) Secure foam bundle to existing vehicle harness with 1 wire tie.

## ACCESSORY CHECK:

**Note: If errors are encountered during testing and compass calibration, see diagnostic flow charts, pages 12-14.**

### ☐ Testing

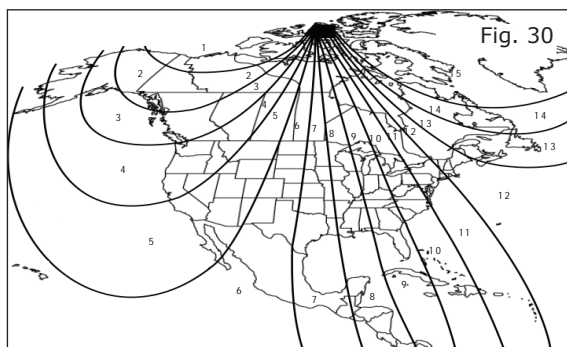
- ☐ Tighten negative battery terminal nut to 5.4 Nm (47.8 in-lb).
- ☐ Turn the ignition switch to ON.
- ☐ Push each HomeLink® button one at a time and verify that the LED indicator to the left of the center switch illuminates with a red LED (Fig. 29).
- ☐ Ensure vehicle is in well lit area.
- ☐ Check to see that the green LED is illuminated. If it is not, press the "⏻" button to turn it on.
- ☐ Cover the forward-looking photocell (located to the driver side of the wire harness connection on the back of the mirror) with a dark cloth or towel. After a few seconds, the mirror should begin to darken. Timing will vary with ambient light levels and a flashlight may be shined on the rearward photocell if needed, to accelerate effect. (Fig. 28)



- ☐ Remove the cover from the forward-looking photocell and the mirror will begin to clear.
- ☐ Push the "N" button to ensure compass display shows either a direction such as "NE" or a "C", and that it can be turned ON and OFF.
- ☐ Testing is now complete.

### ☐ Set Compass Zone

- ☐ With the display turned "ON", push the "N" button for 3 seconds, until a number appears in display (numbers correspond to regional compass zones).
- ☐ Press and release "N" button to scroll through zone numbers.
- ☐ Release "N" button when correct zone number is displayed (Fig. 30). Zone number will disappear and display will return to showing either a directional heading or a "C" after 5 seconds of no switch activity.



### ☐ Calibrate Compass

- ☐ Drive vehicle in circles (360°) at 5 mph or less until compass display window shows a direction.

### ☐ Check all **Critical Installation Steps.**

- ☐ Check all torque values
- ☐ Auto-Dimming mirror, pg. 5, step 15, Fig. 10

### ACCESSORY CHECK:

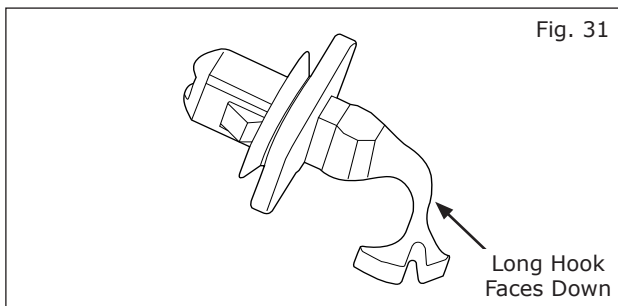
- ☐ Verify all wiring is secure and not exposed.
- ☐ Trim all excess cable ties flush.
- ☐ Check all vehicle electrical systems that the accessory interfaces with.
  - ☐ Power mirror switch.
  - ☐ Traction control switch.
  - ☐ Hood Release
  - ☐ Fuel Door Release

### RE-INSTALLATION OF REMOVED PARTS:

## ⚠ CAUTION

**Use caution when re-installing interior components to avoid damage, scratches, or breaking of mounting clips. Refer to the vehicle service manual for more information.**

- ☐ LH front pillar garnish.
  - ☐ Insert new clip (P/N 76988 3DN0A) into garnish hole ensuring long hook faces down. (Fig. 31)



- ☐ Insert base of finisher.
- ☐ Insert panel removal tool between front pillar garnish bottom side and body side and press clips into body.
- ☐ Push garnish toward vehicle body to attach.

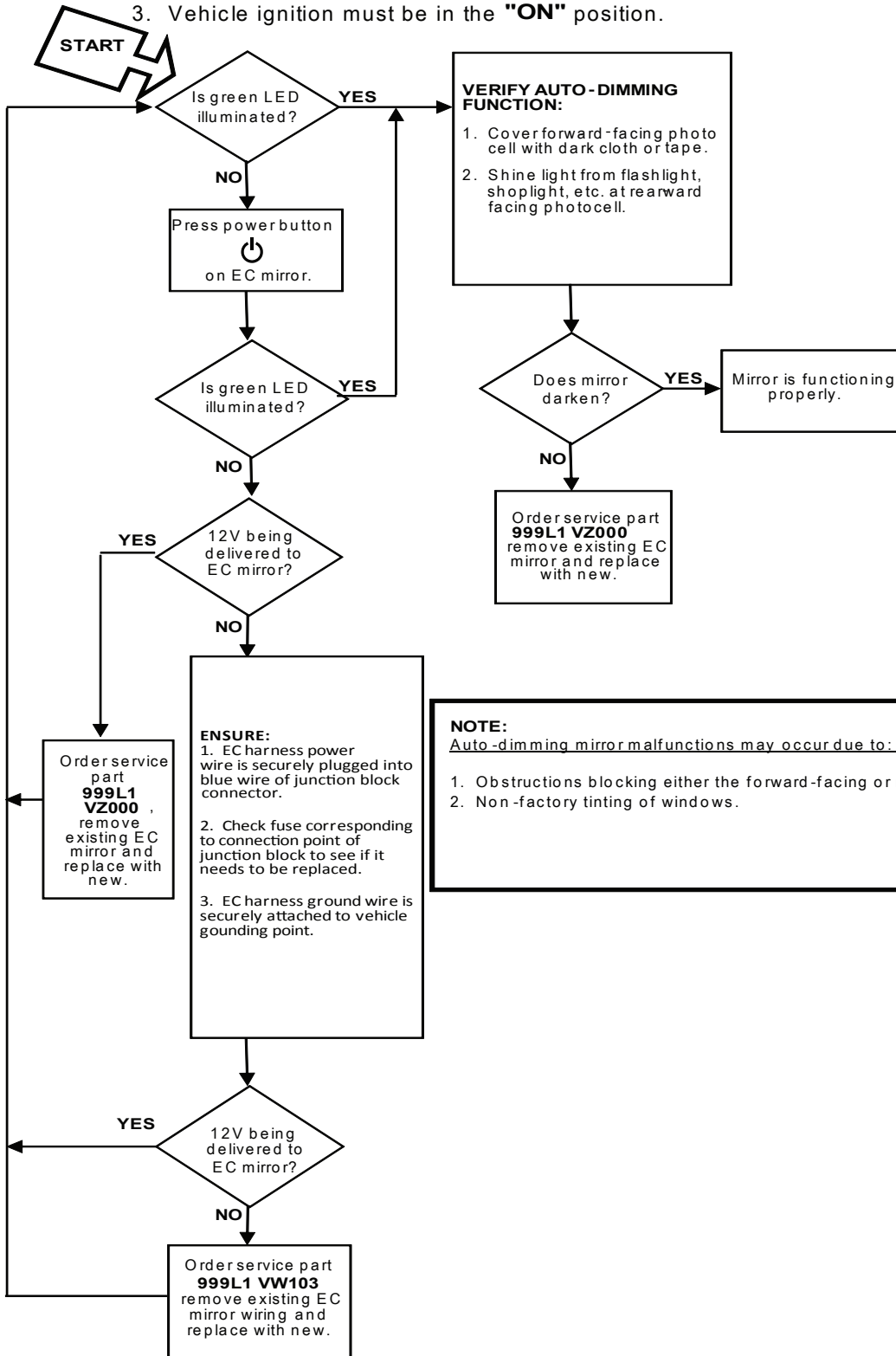
### FINAL INSPECTION:

- ☐ Verify re-installed trim parts for proper flush fit (no gap, no waviness, etc).
- ☐ Verify all clips are fully engaged and locked.
- ☐ Verify re-installed trim parts are free from cracks, scratches, or stress cracks.
- ☐ Verify vehicle headliner, seat, steering wheel, center console, floor carpets, etc. are not soiled.
- ☐ Verify interior and exterior is not damaged.
- ☐ Turn ignition switch to "ON" and confirm proper operation of Vehicle Systems.
  - ☐ If equipped, verify all window and sunroof one touch operation and perform the reset procedure if necessary. Refer to the vehicle service manual for more details.
  - ☐ Confirm proper audio function (AM, FM, SAT, CD and AUX).
- ☐ Re-program radio presets and other vehicle settings to the recorded settings.
- ☐ Start engine and verify that there are no new Diagnostic Trouble Codes. Turn ignition switch to "OFF".
- ☐ Place the Owner Manual, Quick Reference Guide, and/or other Manual in the glove box.

## DIAGNOSTIC FLOW CHART:

 **Note:** If working on service see Page 3, Step 7 to determine if the service mirror is HomeLink 3. Replacing a HomeLink 3 mirror will also require installing a new harness with service kit 999L1-WS102. Before attempting to trouble-shoot EC mirror Auto-Dimming function, ensure the following:

1. Mirror is manufactured by **Gentex Corporation** (the letters GNTX will be etched onto the back of the mirror and the compass display window will be in the mirror glass).
2. EC mirror harness must be fully plugged into EC mirror.
3. Vehicle ignition must be in the **"ON"** position.



### NOTE:

Auto-dimming mirror malfunctions may occur due to:

1. Obstructions blocking either the forward-facing or rearward-facing photo-cells.
2. Non-factory tinting of windows.

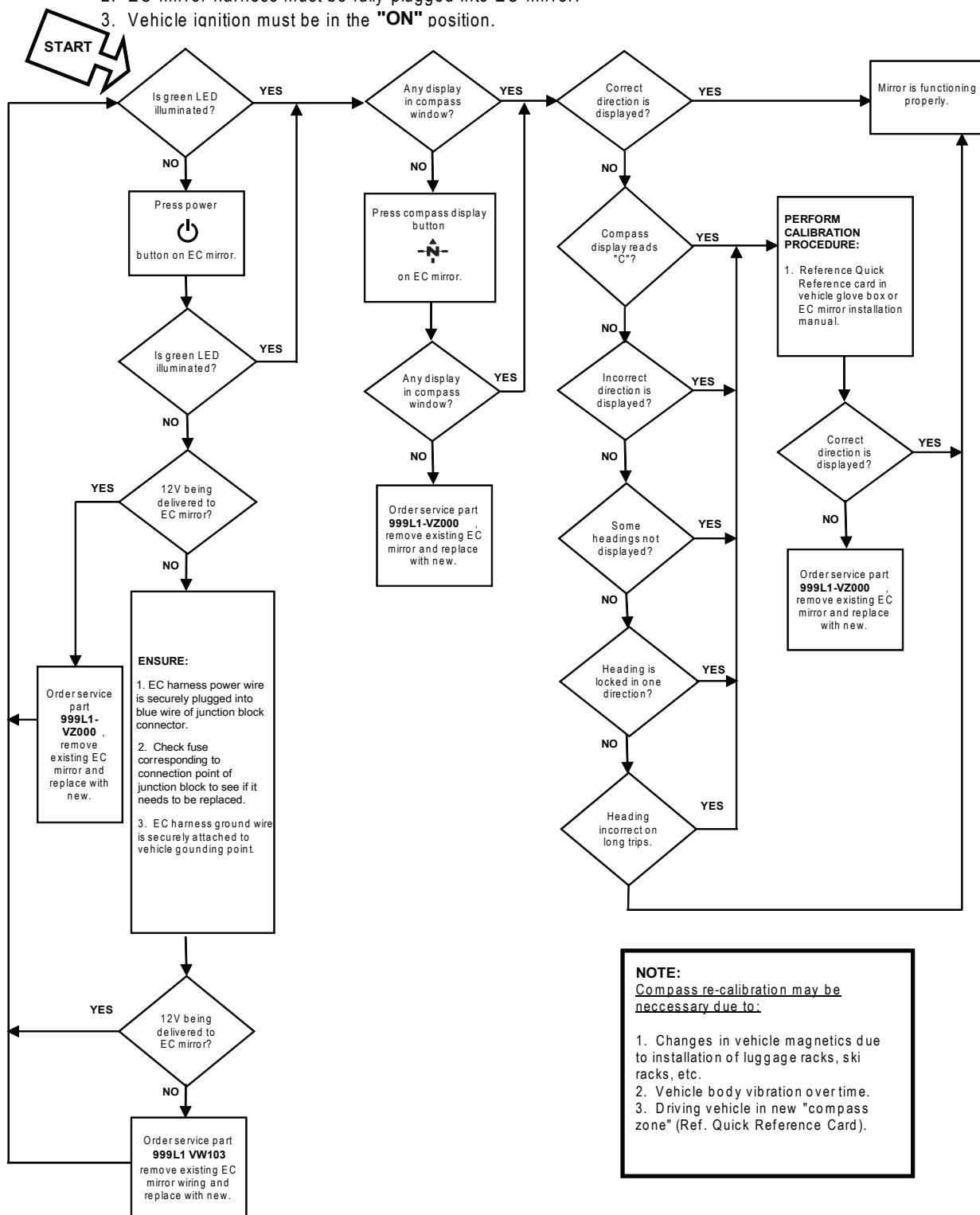
# DIAGNOSTIC FLOW CHART: COMPASS TROUBLE-SHOOTING GUIDE

Part Number: 999L1 VZ000

 **Note: If working on service see Page 3, Step 7 to determine if the service mirror is HomeLink 3. Replacing a HomeLink 3 mirror will also require installing a new harness with service kit 999L1-WS102.**

**Before attempting to trouble-shoot EC mirror compass function, ensure the following:**

1. Mirror is manufactured by **Gentex Corporation** (the letters **GNTX** will be etched onto the back of the mirror and the compass display window will be in the mirror glass).
2. EC mirror harness must be fully plugged into EC mirror.
3. Vehicle ignition must be in the **"ON"** position.



## NOTE:

Compass re-calibration may be necessary due to:

1. Changes in vehicle magnetics due to installation of luggage racks, ski racks, etc.
2. Vehicle body vibration over time.
3. Driving vehicle in new "compass zone" (Ref. Quick Reference Card).

# DIAGNOSTIC FLOW CHART:

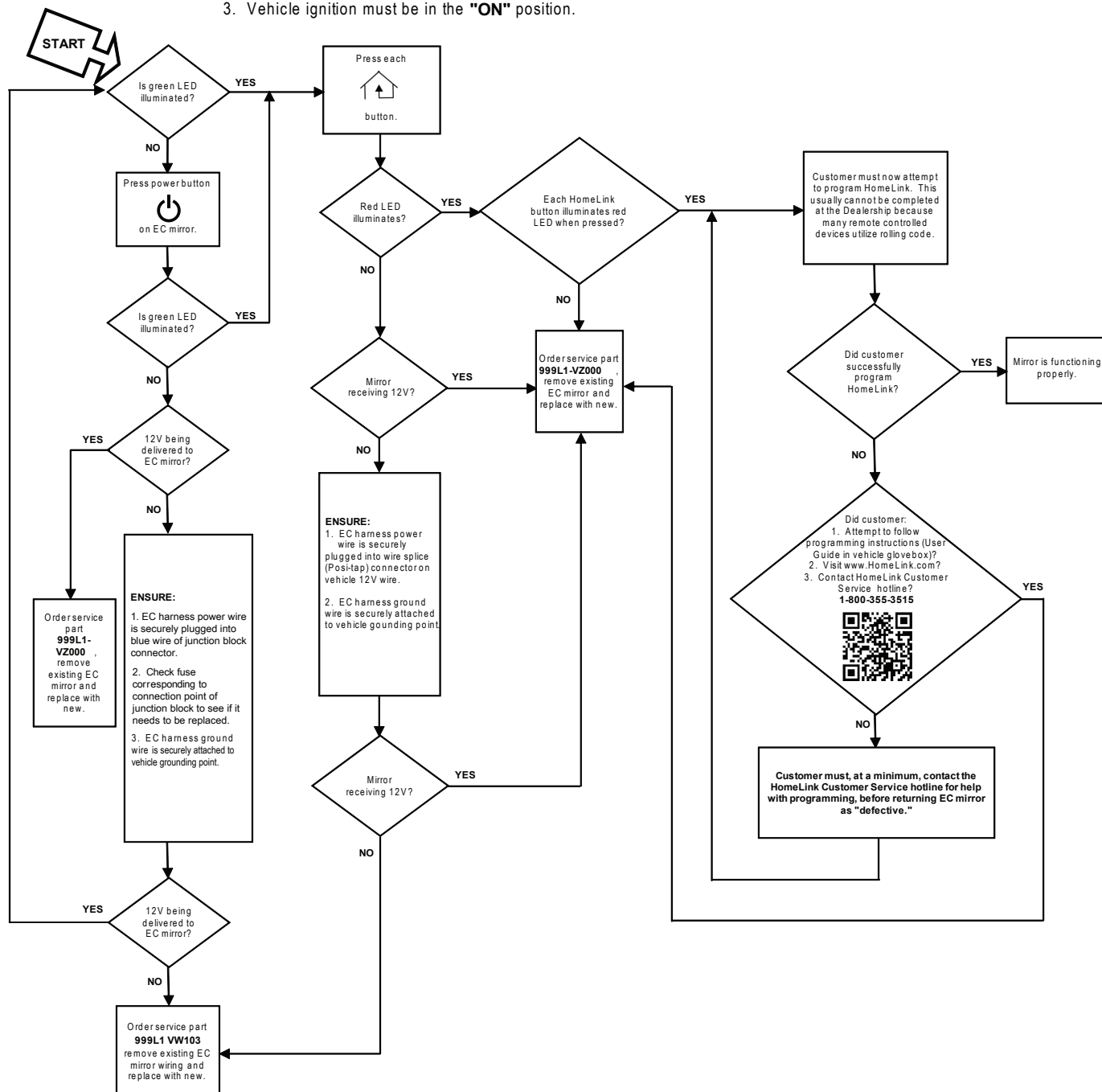
## HOMELINK® TROUBLE-SHOOTING GUIDE

Part Number: 999L1 VZ000

 **Note: If working on service see Page 3, Step 7 to determine if the service mirror is HomeLink 3. Replacing a HomeLink 3 mirror will also require installing a new harness with service kit 999L1-WS102.**

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2. EC mirror harness must be fully plugged into EC mirror.
3. Vehicle ignition must be in the **"ON"** position.



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