



GENUINE PARTS

INSTALLATION INSTRUCTIONS

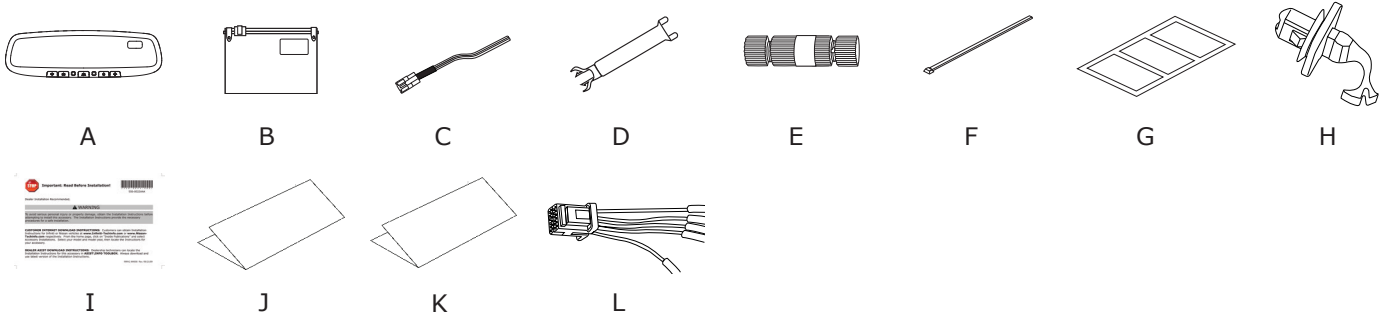
DESCRIPTION: Auto Dimming Mirror with Homelink® and Compass

APPLICATION: Pathfinder

PART NUMBER: 999L1 VZ001

KIT CONTENTS:

Item	Qty.	Part Description	Service Part Number
A	1	EC Compass Homelink® Mirror	999L1 VZ001
B	1	Parts Kit	999L1 VZ002
C	1	Harness Assembly - Ignition, Battery and Ground	
D	1	Wire Cover	
E	3	Posi-tap	
F	9	Wire Tie	
G	9	Foam Tape	
H	1	A-Pillar Clip	76988 3DN0A
I	1	Manual, Installation Instruction Download	999V2 AW000
J	1	User Guide	
K	1	Homelink® User Guide	
L	1	Accessory Service Connector (NOT INCLUDED IN KIT)	999Q9 AY000



TOOLS REQUIRED:

3mm Flat Screwdriver	Side Cutters	Ratchet
Nylon Trim Removal Tool	#1 Phillips Screwdriver	Scissors
Clean Rag	T20 Torx Bit Screwdriver	Rotary Cutting Tool
Fish Wire	10mm Socket	Rotary Cutting Tool Cut-Off Wheel

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

- Dealer Installation Recommended. Instructions may refer to Service Manual.

⚠ 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.

INSTALLATION 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).

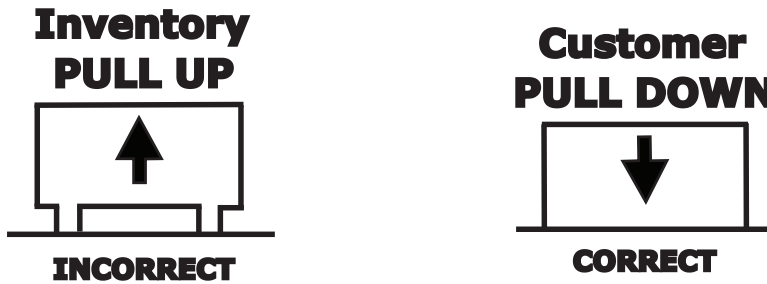


Figure A

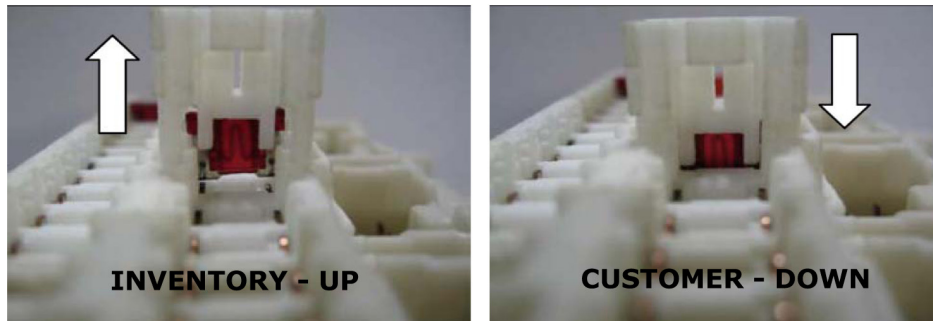
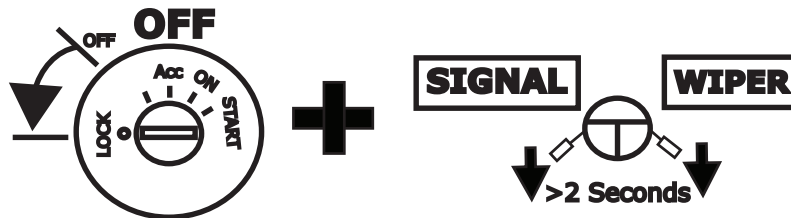


Figure B

- 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

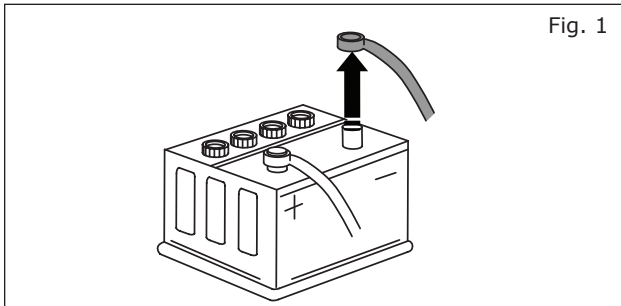


- 4) Record the customer radio presets and other presets as required.

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.

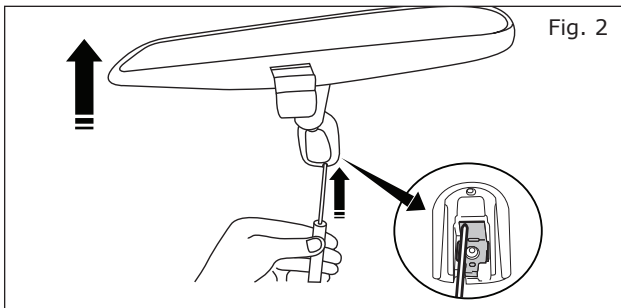
INSTALLATION PROCEDURE:



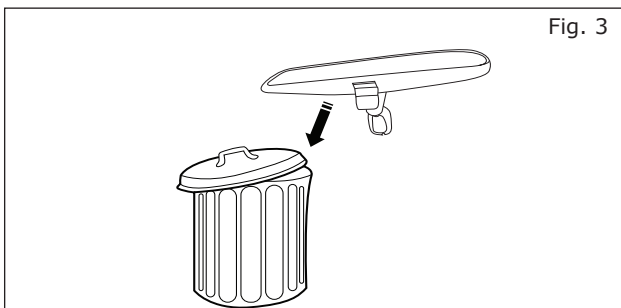
- 7) Disconnect the negative battery terminal.

⚠ CAUTION

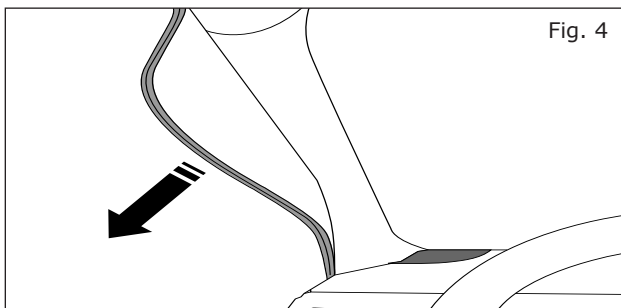
Do not use excessive force when removing OE mirror from windshield. The window button may separate from windshield or the windshield could break.



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



- 9) Discard mirror

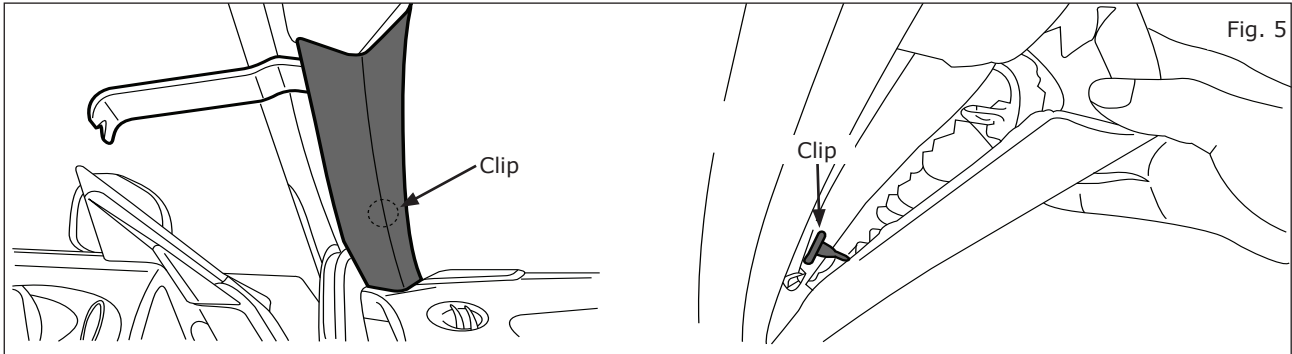


- 10) Using a panel removal tool, loosen the driver side weather strip and remove from the top of the A-pillar to the instrument panel.

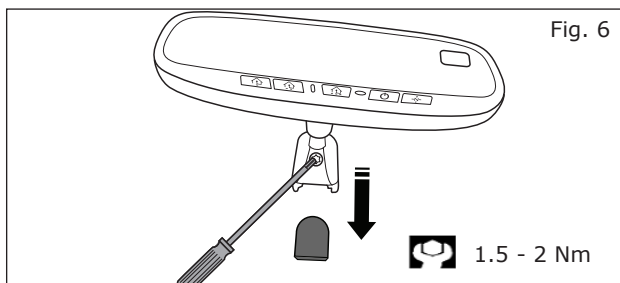
INSTALLATION PROCEDURE:

⚠ CAUTION

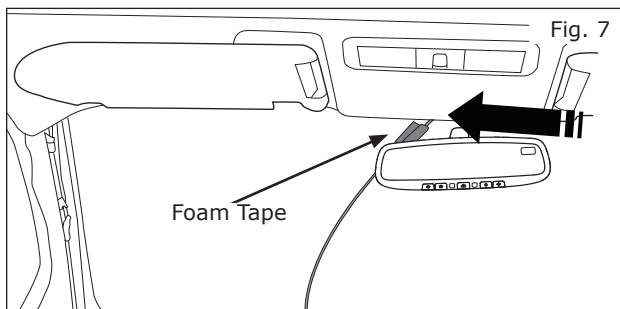
- Exercise caution when removing and installing LH front pillar garnish due to side airbag placement. Reference Figure 5 below for further detail.
- Do **NOT** re-use LH front pillar garnish clip. LH front pillar garnish clip (P/N 76988 3DN0A) **MUST** be replaced during re-installation of garnish.



- 11) Disengage driver side front pillar garnish fixing clip and metal clip with panel removal tool, cut clip A with cutter knife and then remove front pillar garnish.
 - a) Remove and discard the clips from the vehicle.

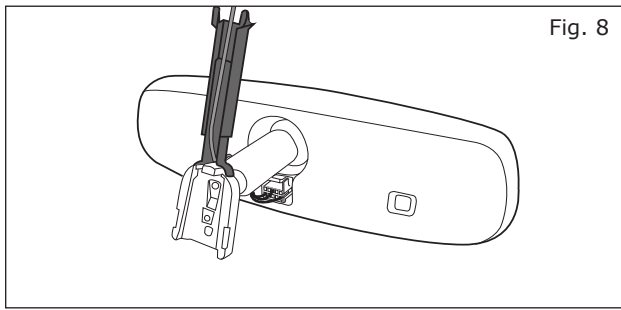


- 12) Install rearview mirror.
 - a) Plug the harness connector into the back of the mirror.
 - b) Slide the rearview mirror base over the button on the windshield.
 - c) Using a T-20 Torx head driver, tighten the screw on the mirror mount 1.5 - 2.0 Nm (1.3 ft - lbs.) (Fig. 6)

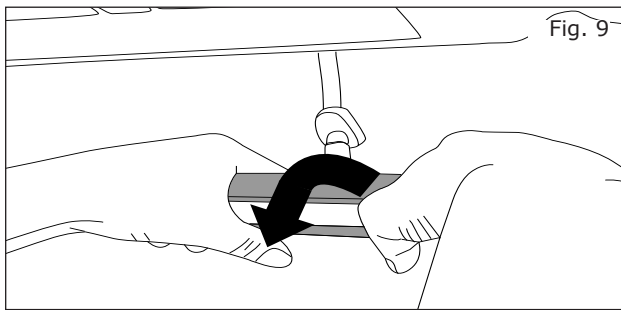


- 13) Wrap 1 piece of foam tape around the harness and, using a panel removal tool, tuck between the headliner and roof above the EC mirror. (Fig. 7)

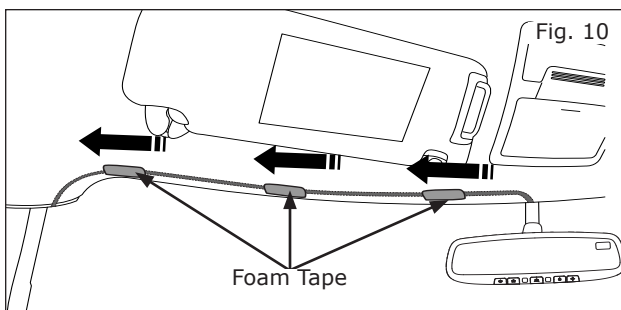
INSTALLATION PROCEDURE:



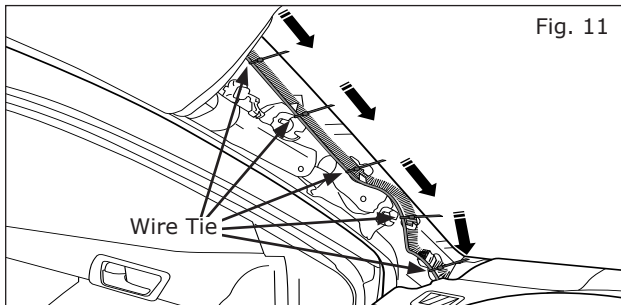
- 14) If a wire cover was removed from the OE mirror, discard the OE wire cover and use the new wire cover from kit contents.
 - a) Route harness into the groove of the wire cover and attach to the mirror mount.
 - b) Slide the forks on top of the wire cover, into the headliner. (Fig. 8)
 - c) Verify cover is properly seated and aligned.



- 15) Grasp the mirror and rotate downward. Check to ensure wire cover sits flush against the windshield. (Fig. 9)
 - a) If there is a gap between the wire cover and the windshield, ensure there is enough harness slack from the mirror to the headliner. Adjust if necessary.

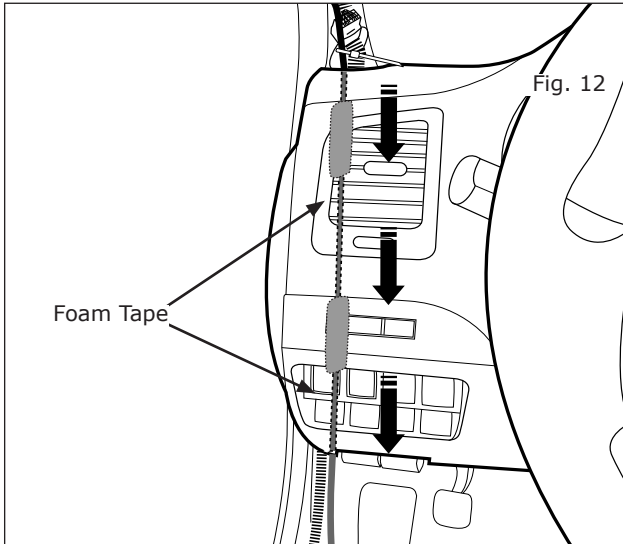


- 16) Wrap two pieces of foam tape around the mirror harness at the center of the sunvisor and where the headliner meets the A-pillar.
 - a) Using a panel removal tool, tuck the wire harness between the headliner and the roof. (Fig. 10)

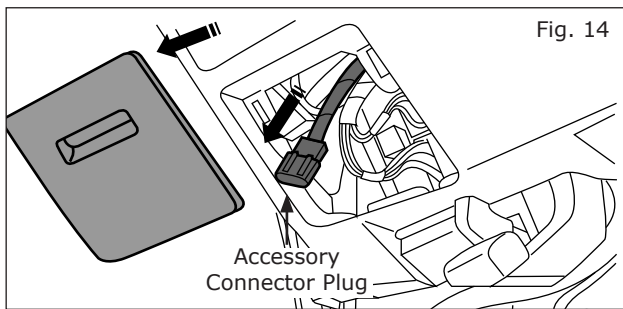


- 17) Route the harness down the driver side A-pillar and secure to the existing vehicle harness with 5 wire ties. (Fig. 11)

INSTALLATION PROCEDURE:



- 18) Wrap 2 pieces of foam tape around the mirror harness and feed the harness through the top of the dash near the a-pillar. Feed the harness from the upper dash to the lower driver side kick panel area. Secure the EC mirror harness to the body harness in the driver side kick panel area with 2 wire ties. (Fig. 12)



- 19) Remove the fuse block access panel from the left side of the dash. Locate the driver side Accessory Connector plug. It will be located up under the dash to the right of the fuse block. Carefully pull the plug out for easier access. (Fig. 14)

Note: A previously installed accessory connector may be present. If so, carefully remove the accessory connector harness from the plug before posi-tapping. It is recommended that all posi-tapping be completed before reattaching the accessory connector to the plug.

PIN #	Function	Wire Size	Color	Comment
1	BAT		R	
2				No Wire; Reserved for future use
3	ACC		O	
4				No Wire; Reserved for future use
5	BATT SVR		P	
6	DOOR		G	
7	CROSS 2		L	
8	CROSS 1		SB	
9				No Wire; Reserved for future use
10	RM LMP		Y	
11				No Wire; Reserved for future use
12	GND		B	

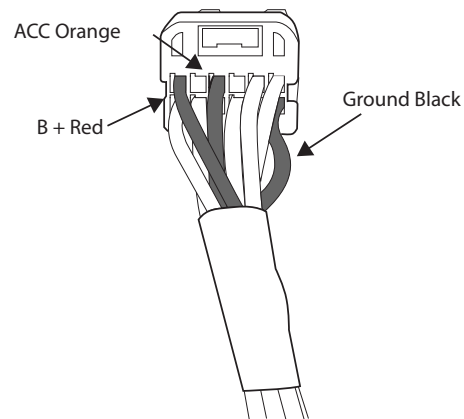
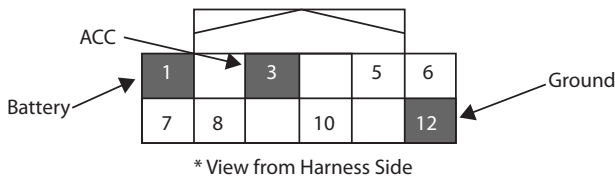
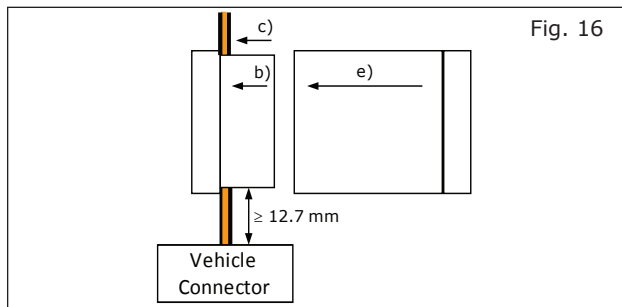


Fig. 15

- 20) Using a posi-tap, connect the BLACK WIRE from the mirror harness to the BLACK wire on the accessory connector harness. Using a posi-tap, connect the BLACK WIRE W/WHITE TRACE from the mirror harness to the ORANGE wire on the accessory connector harness. Using a posi-tap, connect the BLACK WIRE WITH THE BLUE DOT from the mirror harness to the RED wire on the accessory connector harness. (Fig. 15)
- a) See Step 21 - 25 for posi tap installation instructions.

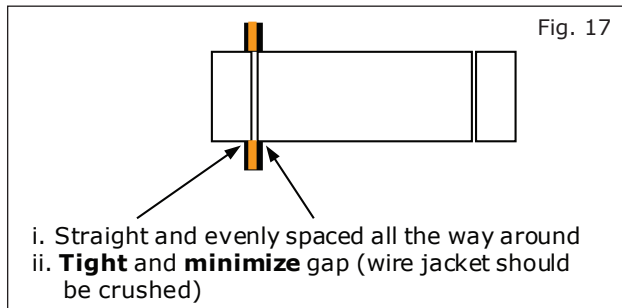
Note: Be sure NOT to posi-tap through the shrink tubing. HARNESS NOT INCLUDED IN KIT. REFERENCE PART NUMBER 999Q9 AY000

INSTALLATION PROCEDURE:



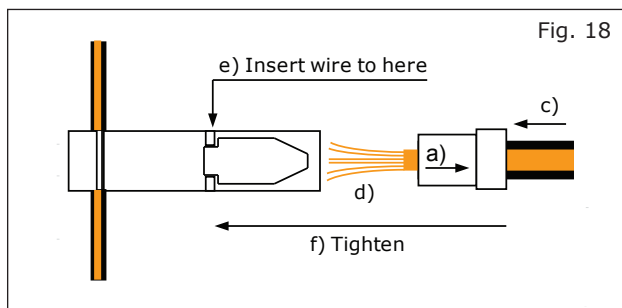
- 21) Tap vehicle wire.
 - a) Identify and confirm (test if necessary) the correct vehicle wire to be tapped.
 - b) Remove cap (slot side) from tap body.
 - c) Slide cap around vehicle wire.
 - d) Position cap > 0.5" (12.7mm) away from the back of the vehicle connector.
 - e) Tighten the tap **TIGHT** with finger pressure.
 - f) Tighten by another quarter turn.

NOTE: Figures are not to scale. Do not re-use the tap.

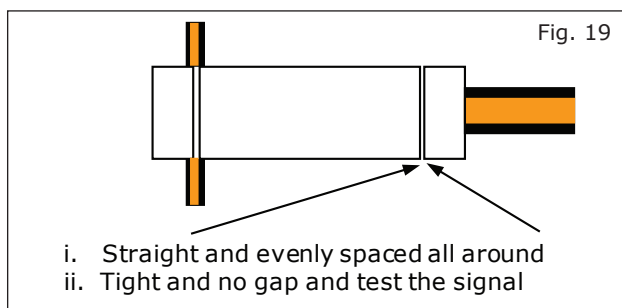


- 22) Inspect the tap to ensure correct installation.

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

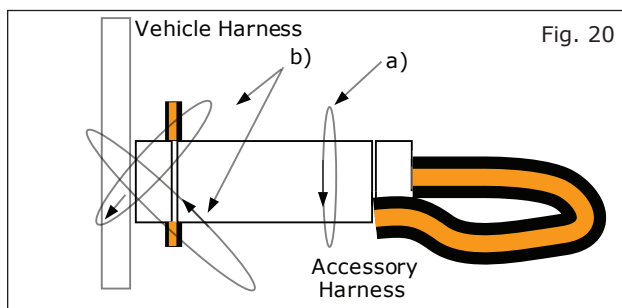


- 23) Tap accessory wire.
 - a) Remove tap (non-pierce) side from tap.
 - b) Remove the protective stub from the wire.
 - c) Insert the GREEN reverse wire on the EC mirror harness through the non-pierce side opening.
 - d) Spread the individual strands into fan shape.
 - e) Insert wire into the tap body and ensure that it is all the way in.
 - f) Tighten the tap **TIGHT** with finger pressure.
 - g) Tighten by another quarter turn.



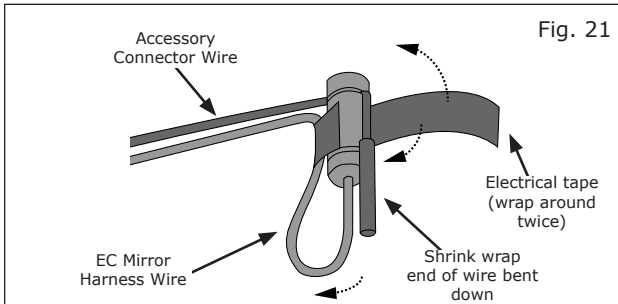
- 24) Confirm the tapped accessory wire. (Fig. 19)
 - a) Pull on the wire lightly to ensure connection.
 - b) Inspect the tap to ensure correct installation.
 - c) Test the signal to ensure that it is working properly.

NOTE: Avoid putting pressure on the vehicle wire, tap, and accessory wire for the rest of the installation.



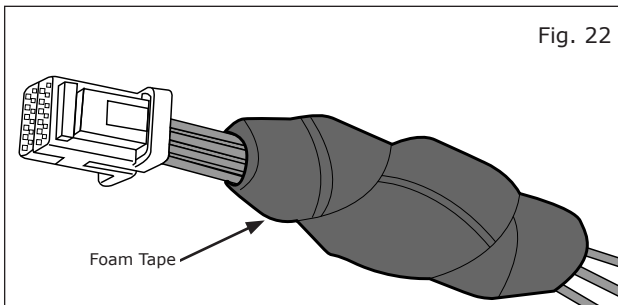
- 25) Secure the tap. (Fig. 20)
 - a) Secure the tapped wire on the non-pierce side to the body of the posi-tap with electrical tape (2 revolutions).
 - b) Secure the body to harness where vehicle wire is being tapped with electrical tape (> 2 revolutions).

INSTALLATION PROCEDURE:

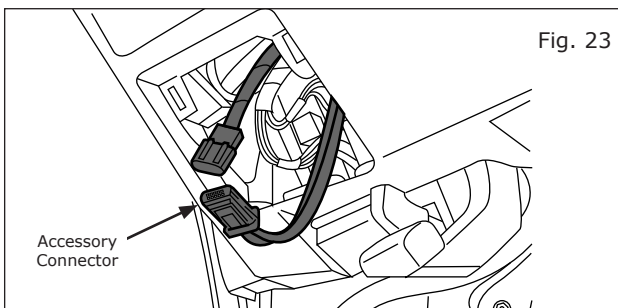


- 26) Follow this finishing procedure on all posi-taps.** Leave a short length of wire extended past the posi-tap and bend down as shown. Use electrical tape to secure the extra wire against the posi-tap with at least two revolutions. (Fig. 21)

Note: Make sure that the end of the wire is completely covered by the tape.

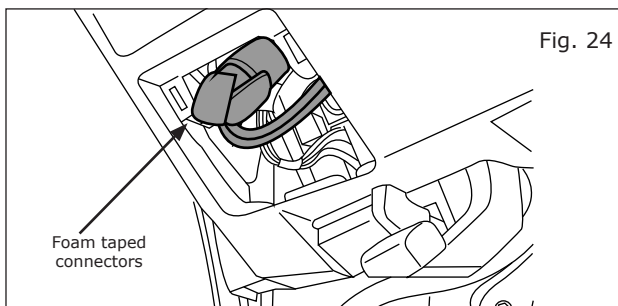


- 27) Wrap the posi-taps with 3 pieces of foam tape to prevent rattle. (Fig. 22)



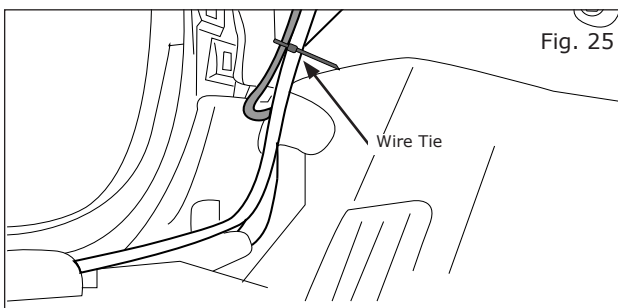
- 28) Route the Accessory Connector Harness up behind the fuse block. Follow the O/E harness over the top of the fuse block to the vehicle connector plug. Plug the connectors together. (Fig. 23)

Note: Be sure the new harness routing does NOT interfere with the emergency brake in any way.



- 29) Wrap the connectors in foam tape and position them back up inside the dash above the fuse block. (Fig. 24)

Reinstall the fuse block access panel.

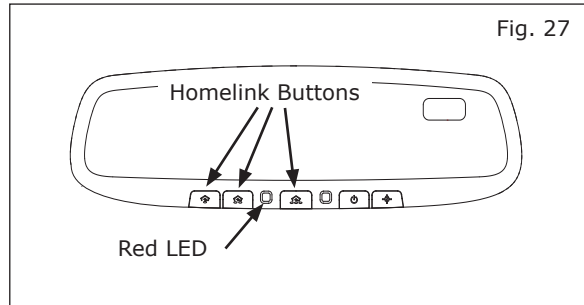
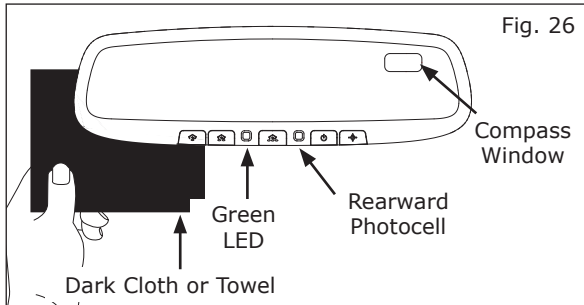


- 30) Route any extra wire along the existing harness. Bundle and secure any excess wire with a wire tie (Fig. 25)

ACCESSORY CHECK:

Testing

- Tighten negative battery terminal nut to 5.4 Nm (47.8 in-lb).
- Turn the ignition switch to ON.
- 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.
- Remove the cover from the forward-looking photocell and the mirror will begin to clear.



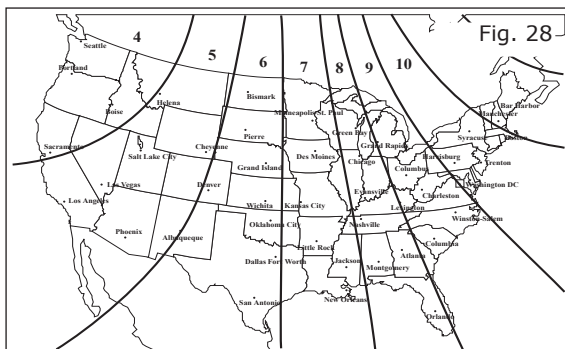
- Push the "⬆️" button to ensure compass display shows either a direction such as "NE" or a "C", and that it can be turned ON and OFF.
- Push each Homelink® button one at a time and verify that the LED indicator to the left of the center switch illuminates with a red LED (Fig. 27).
- Testing is now complete.

Set Compass Zone

- With the display turned "ON", push the "⬆️" button for 3 seconds, until a number appears in display (numbers correspond to regional compass zones).
- Press and release "⬆️" button to scroll through zone numbers.
- Release "⬆️" button when correct zone number is displayed. 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.



- Diagnostic flow chart is available on last page of instructions for troubleshooting.
- Check all **Critical Installation Steps**.
- Check all torque values
 - Auto-Dimming mirror, pg. 4, step 12, fig. 6

ACCESSORY CHECK:

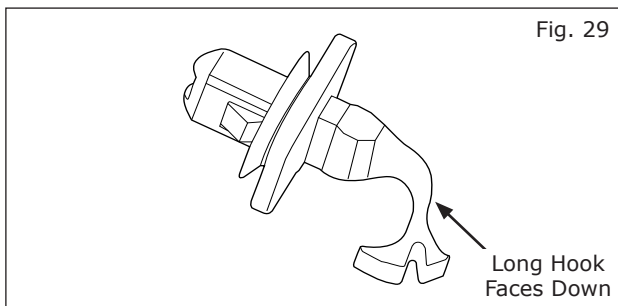
- Verify all wiring is secure and not exposed.
- Trim all excess cable ties flush.
- Check all vehicle electrical systems that the accessory interfaces with.
 - Power mirror switch.
 - Traction control switch.
 - Hood Release
 - Fuel Door Release

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.



- 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.

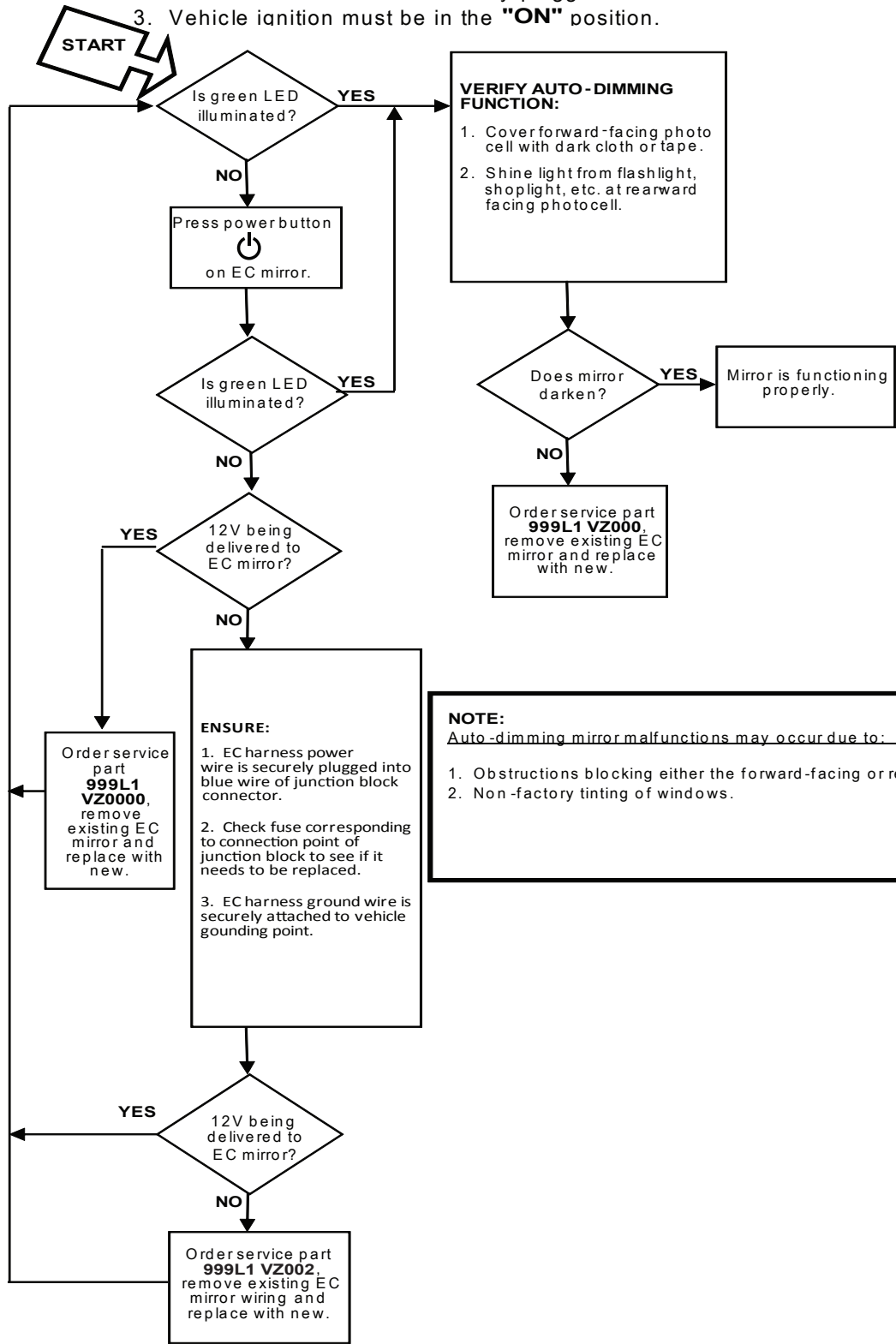
FINAL INSPECTION:

- 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:

Before attempting to trouble-shoot EC mirror Auto-Dimming function, ensure the following:

1. Mirror is manufactured by **Gentex Corporation** (the letters **GNIX** 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.

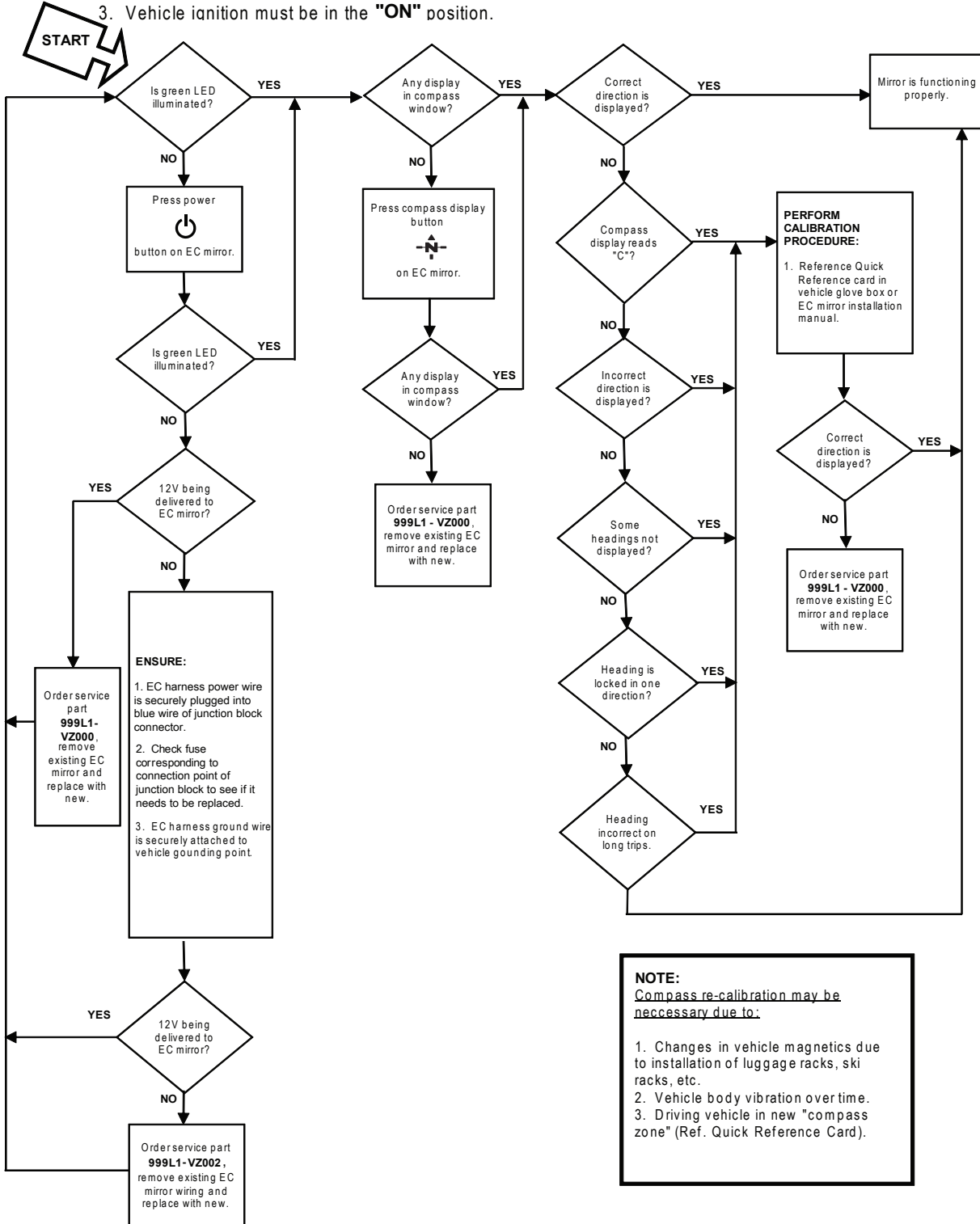
DIAGNOSTIC FLOW CHART:

COMPASS TROUBLE-SHOOTING GUIDE

Part Number: 999L1 VZ001

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

1. Mirror is manufactured by **Gentex Corporation** (the letters **GNIX** 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).

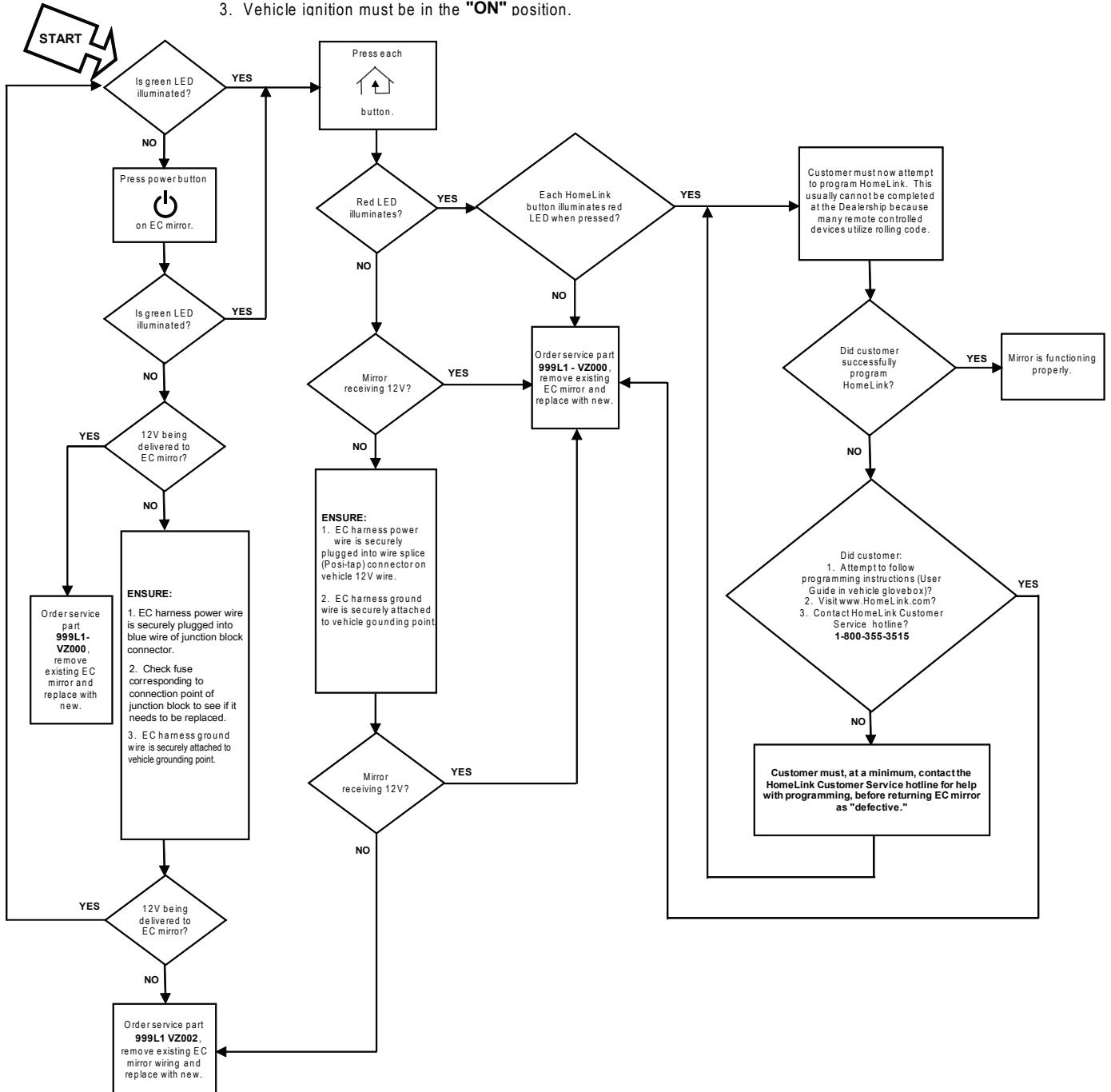
DIAGNOSTIC FLOW CHART:

HOMELINK® TROUBLE-SHOOTING GUIDE

Part Number: 999L1 VZ001

Before attempting to trouble-shoot EC mirror HomeLink® 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).
3. Vehicle ignition must be in the **"ON"** position.



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