

Navigation System

General Troubleshooting Information

General Operation

Refer to the Acura Navigation System Owner's manual for the navigation system operating procedures.

Anti-theft Feature

The navigation system has a coded theft protection circuit. Be sure to get the customer's 4-digit security code number before:

- disconnecting the battery
- disconnecting the navigation unit 8P connector
- removing the No. 56 (7.5A) fuse from the under-hood fuse/relay box

After service, reconnect power to the navigation unit, and turn the ignition switch ON (II). Enter the 4-digit security code, then select "Done".

If the code cannot be found, use the interactive Network (iN) to look it up. You will need the serial number for the navigation unit in the trunk. It is on a tag on the underside of the unit. Alternatively, you can view the serial number in one of the Navi ECU diagnostic screens.

When replacing the navigation unit, be sure to give the customer the new anti-theft security code.

Symptom Diagnosis

Under some circumstances, the navigation system may behave in an inconsistent manner. Some customers may think that this indicates a problem when, in fact, the system is working properly. Keep the following items in mind when interviewing customers about symptoms of the navigation system.

Self-Inertial Navigation Limitations

When GPS signals cannot be received (like in a tunnel or in an urban environment of tall buildings), the system is totally dependant on the yaw rate and speed sensor to position the vehicle on the map. Under these circumstances small errors in the yaw rate and speed sensor can accumulate and display the vehicle position on an adjacent street, or lagging behind the actual position. This is normal, and usually corrects itself once satellite reception is re-established.

The following circumstances may causes vehicle positioning errors.

- Moving the vehicle with the navigation system on and the vehicle stopped, such as by ferry or tow truck, or if the vehicle is spun on a turn table
- Tire slippage, changes in tire rolling diameters, and some driving situations may cause discrepancies in travel distances. Examples of this include:
 - Continuous tire slippage on a slippery surface
 - Driving with snow chains mounted
 - Abnormal tire pressure
 - Incorrect tire size
 - Frequent lane changes across a wide highway
 - Continuous driving on a straight or gently curving highway
- Tolerances in the system and map inaccuracies sometimes limit how precisely the vehicle position is indicated. Examples of this include:
 - Driving on roads not shown on the map (map matching is not possible)
 - Driving on a road that winds in one direction, such as a loop bridge, an interchange, or a spiral parking garage
 - Driving on a road with a series of sharp hair-pin turns
 - Driving near a gradual highway exit or transition
 - Driving on one of two close parallel roads
 - Making many 90 degree turns

Global Positioning System (GPS) Limitations

The GPS cannot detect the vehicle's position during the following instances:

- For the first 5 to 10 minutes after reconnecting the battery (this can take as long as 45 minutes)
- When the satellite signals are blocked by tall building, mountains, tunnels, large trees, or large trucks
- When there is no satellite signal output (Signal output is sometimes stopped for satellite servicing)
- When the satellite signals are blocked by the operation of some electronic aftermarket accessories including, but not limited to non-DEM in-dash entertainment units (radio, CD players/changers, and Lo Jack) and window tinting above the GPS antenna

The accuracy of GPS is reduced during these instances:

- When only two satellite signals can be received (Three satellite signals are required for accurate positioning)
- When the satellite control centers are experiencing problems
- When driving near high tension power lines.
- When driving near tall buildings that reflect satellite signals, creating false position location readings.
- If electronic GPS jamming is occurring either intentionally, or unintentionally.
- If loose items or pets are resting above the antenna on the rear shelf.



Muting Logic

Whenever the navigation system is giving guidance, front speakers are muted. When the voice control system is being used, all of the speakers are muted. When using On-Star, both the audio system and the navigation system are muted, and the voice control switch (TALK and BACK buttons) is disabled.

Voice Control Limitations

Before assuming that a voice control complaint is hardware related, ensure that the voice control system is being operated correctly (see "Voice recognition does not work", page [23-35](#)).

LCD Display Unit Limitations

- In cold temperatures, the display may stay dark for the first 2 or 3 minutes until it warms up.
- When the display is too hot because of direct summer sunlight, it will remain dark until the temperature drops.
- When the humidity is high and the interior temperature is low, the display may appear cloudy. The display will clear up after some use.
- Fingerprints on the touch panel may sometimes be noticeable because of the panel's low-reflection coating. When cleaning the panel, wipe it gently with a soft cloth. To avoid scratching the panel, do not rub too hard, or use abrasive cleaners or shop towels.
- The touch panel is an infrared system, so there is no need to press hard. If a touch switch does not function immediately, shift your finger slightly, and touch it again.

Note: Input may be affected by direct sunlight.

Symptom Duplication

- When the symptom can be duplicated, follow the self-diagnostic procedures and the appropriate troubleshooting procedures.
- When the symptom does not reappear or only reappears intermittently, ask the customer about the conditions when the symptom occurred.
 - Try to establish if outside interference may have been the cause.
 - Try to duplicate the symptom under the same conditions the customer was experiencing.
 - Vibration, temperature extremes, and moisture (dew, humidity) are factors that are difficult to duplicate.
 - Inspect the vehicle for after-market electronic devices (vehicle locators, amps, radar detectors, etc) that may be hidden.

Service Precautions

- Before disconnecting the battery, make sure you have the anti-theft codes for the radio and the navigation system, and write down the frequencies for the radio's preset buttons.
- When the battery is disconnected, the internal GPS clock is reset to "0:00". The clock will reset to the correct time after the system finishes GPS initialization.
- After reconnecting the battery, you have to wait to get the initial signal from the satellite, which may take from 10 to 45 minutes. Follow the instructions on the screen.
- After reconnecting the battery, do the power window control unit resetting procedure.
- Before returning the vehicle to the customer, enter the radio code, then enter the customer's radio station presets, and set the clock. Do the engine control module (PCM) idle learn procedure.

After Servicing-Map Matching

- Park the vehicle in an area where the GPS satellite signals will be unobstructed. Make sure the GPS indicator on the map screen is green.
- Drive the vehicle 1 mile before entering a destination and confirm the road being used is displayed at the bottom of the screen (map matched).
- Enter the dealer address and confirm the system routes and performs normally.
- Clear any previous destinations that may have been entered for testing purposes.

Obtaining A Navigation DVD

If the navigation DVD is lost or damaged, or you need a yearly update DVD, you have 2 ways to purchase one. You can either call (888) 549-3798, or order on-line at www.Acura.com.

Both methods require a credit card. The DVD for this model has an orange label, and cannot be ordered through the parts system. The following DVDs will not work in this navigation system:

- Earlier model Acura Navigation DVDs (black label)
- Map software programs manufactured by other companies
- DVD movies, or DVDs containing audio recordings

Update DVDs are available for purchase usually in the fall of each year. They may contain the following:

- Enhanced map and Points of interest (POD coverage)
- Fixes for minor software bugs
- Additional features

Note: Update is of course optional, and there is no program to provide free DVDs containing yearly mapping updates.