

Applies To: 2009 TSX – ALL

April 17, 2008

2009 TSX: TQI of the DVD Navigation System With Voice Recognition

BACKGROUND

This bulletin provides information for the TQI and testing of the navigation system. These topics are covered:

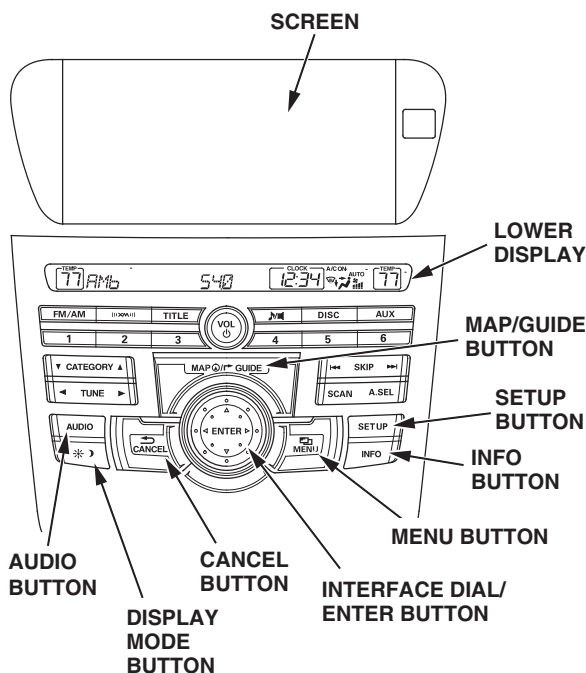
- Navigation System Controls
- Voice Control System
- Navigation System Setup at the TQI
- Map Coverage Areas
- Hawaii System Setup
- AcuraLink™ Real-Time Traffic Information
- XM Weather Information
- Ordering a DVD

For detailed information on system operation, refer to the navigation system manual.

WARRANTY CLAIM INFORMATION

None; these procedures are considered part of the normal TQI.

NAVIGATION SYSTEM CONTROLS



Screen – All selections and instructions are displayed on the screen. *This is not a touch-screen display.* Information **cannot** be entered into the system by touching the images or icons with your finger. To communicate with the system, use the voice control system or the interface dial. If the vehicle is equipped with a rearview camera, the rear view is shown on the navigation system screen whenever you shift to R. Use a soft cloth and a mild cleaner intended for eyeglasses or computer screens to clean the screen.

Lower Display – Shows the radio information, the climate control information, and the time.

MENU button – Press this button to change the display from the current screen to the **Enter destination by** screen. When en route to a destination, press this button to change to the **Change route by** screen.

MAP/GUIDE button – Press this button to display a map of your current position for casual driving. When en route, press this button to switch between the map and the guidance or direction list screen.

INFO button – Press this button to display the menu for selecting **Message, Voice Command Help, Trip Computer, Map Legend, Calendar, Calculator, Key to Zagat Ratings, and Roadside Assistance.**

AUDIO button – Press this button to display the audio screen.

A/C button – Press this button to display the climate control screen.

CANCEL button – Press this button to return to the previous screen.

SET UP – Displays the setup screens to change and update information in the system.

(DISPLAY MODE) button – Switches the display between Day mode, Night mode, and OFF.

Interface Dial/ENTER button – The interface dial moves left, right, up, down, and rotates.

- Move the dial up and down to scroll through a displayed list one page at a time.
- Rotate the dial to move the highlighting from one item to another in a list.
- Push in the dial to select an item in a list once it is highlighted.

- When a map is displayed, rotate the dial to change the map scale. Clockwise reduces the scale, showing less area with greater detail. Rotating it counterclockwise increases the scale, showing more area with less detail.
- When the rearview image is displayed, rotate the dial to change the screen brightness level.

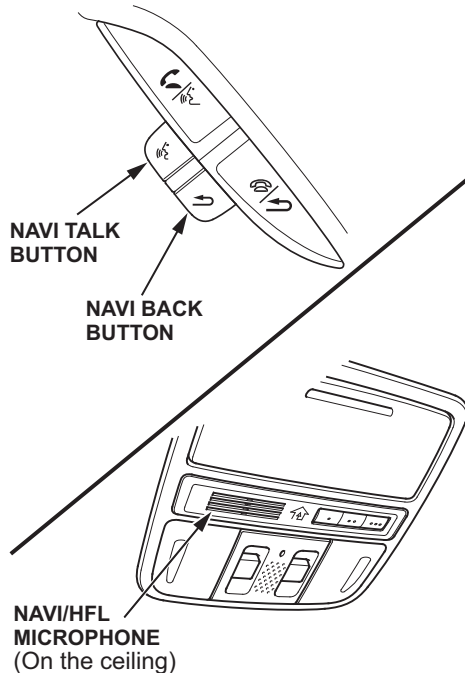
VOICE CONTROL SYSTEM

Voice recognition is controlled by the NAVI TALK and BACK buttons on the steering wheel. This is the primary way to give commands to the system. Using the navigation system buttons and interface dial allows the passenger to operate the system and should be considered a secondary method for the driver.

NAVI TALK – Press and release this button to activate the voice control system. After pressing and releasing NAVI TALK, wait for the beep, then speak the command.

NAVI BACK – This does the same function as the CANCEL button. Press this button to return to the previous display. After the previous display appears, the system prompts you for a command, and then beeps. Press and release the NAVI TALK button to give the desired command.

Microphone – Receives voice commands for the navigation and HandsFreeLink systems.



The navigation system communicates through the audio speakers. When the navigation system is giving guidance instructions, it is through the front speakers. When you are using the voice control system to give commands (by pressing the NAVI TALK or BACK buttons), the front and rear speakers are muted.

The voice command list can be viewed or heard by pressing the INFO button and selecting **Voice Command Help**. A tutorial is included that explains the operation of the voice control system. Refer to the navigation system manual for detailed information.

Improving Recognition

To help the system understand your voice commands, follow these guidelines:

- Make sure that the airflow from the A/C vents does not interfere with the system microphone in the ceiling console. Place your hand over the microphone; if you feel any airflow, adjust the vents away from the microphone.
- Make sure the correct screen is displayed for the voice command you are giving. Refer to the navigation system manual.
- Close the windows and the moonroof.
- Set the fan speed to low (1 or 2).
- After pressing the NAVI TALK button, wait for the beep, then give a voice command.
- Give a voice command clearly, in a natural speaking voice, without pausing between words.

NOTE:

- If the system cannot recognize your voice command, speak louder or change the rhythm of your voice.
- If the microphone picks up voices other than yours, the system may misinterpret your voice commands.
- If you speak a command with something in your mouth, with a heavy accent, or have a high pitched voice, the system may misinterpret your voice commands.
- When the fan speed is in the high position, the system reduces the fan speed when you press the NAVI TALK button, but the fan could still interfere with the microphone.

NAVIGATION SYSTEM SETUP AT THE TQI

The navigation system is basically ready to use when the vehicle is delivered to the dealership. Since the system interfaces with other systems in the vehicle, it is important to ensure that all of the systems are initialized so they will work properly for the client. To initialize the system, follow this procedure.

1. Do the normal TQI of the vehicle, including the audio system. The navigation system voice will not function until the 5-digit anti-theft code for the audio system has been entered.

2. Verify that the XM[®] Satellite Radio dealer demo account is set up by tuning to XM stations **000, 001, 007, 009, 047, 122, 174, and 247**. If you receive these stations, the demo account is fully active.

NOTE: For 2009 TSXs, XM Satellite Radio, XM Weather, and real-time traffic are free for the first 3 months. After 3 months, clients must subscribe to XM radio, XM Weather, and/or real-time traffic to continue receiving coverage by calling **800-852-9696**, or online at www.xmradio.com. They will need their XM radio ID's (displayed when you tune to channel 0) and a credit card.

3. If the navigation diagnostic screen (shown below) is displayed, do the following. If not, go to step 4.
 - Press and hold the MENU, MAP/GUIDE, and CANCEL buttons at the same time until the **Select diagnosis** menu screen comes up. Then release the buttons.
 - Press and hold the MAP/GUIDE button for at least 15 seconds.
 - Select **Complete** on the screen, then select **Return** twice to exit the diagnostic mode.



4. Start the engine, and move the vehicle outside, away from buildings and power lines. Then enter the 4-digit security code for the navigation system. The code is on the Navigation Anti-Theft Code card.

NOTE:

- If the anti-theft code card is lost, you can find the code on the *IN* (Interactive Network) by using the anti-theft code option and the navigation unit serial number. To get the serial number, go to the **Navi ECU** screen (refer to the navigation system diagnostic mode in the service manual), or look on the underside of the navigation unit.
 - If you cannot find the code on the *IN*, contact American Honda's Warranty Department at **(310) 783-3240**.
 - If the anti-theft code does not work, try entering 0000 (four zeros) as the code. If the system accepts this, replace the navigation control unit.
5. The following instructions appear on the screen to indicate the system is initializing (determining its location from the GPS satellites). Follow the on-screen instructions.

The navigation system lost power and is acquiring its location from the GPS satellites. This usually takes less than 10 minutes.

- * Start the engine.
- * Park the vehicle in an open area away from trees, power lines, and tall buildings.
- * Remove loose articles, cell phones, or electrical accessories located near the GPS antenna.
- * If this screen is displayed repeatedly when starting the vehicle, see your dealer.

NOTE: The average initialization takes about 10 minutes, but it can take as long as 45 minutes. If initialization completes within 10 minutes, the display changes to the globe screen.

6. If the system **does not** initialize within 10 minutes, a second screen, shown below, appears. The system is still initializing but will not automatically exit to the globe screen when the initialization is complete. Do not immediately follow the instructions on the screen. After 30 minutes, try restarting the vehicle to see if the navigation system completed the initialization. If not, follow the instructions on the screen.

Something is interfering with the system's ability to acquire its location. Check the following:

- * The vehicle must be in an open area with a clear view of the sky.
- * Remove sources of GPS interference like metallic window tint above antenna, or electrical items near antenna (see owner's manual for details).
- * Check GPS antenna cable connection.
- * Restart the engine and repeat the GPS acquire procedure. If the problem persists, see your dealer.

NOTE: The initialization screen may appear after battery voltage to the navigation control unit has been disconnected for more than 5 minutes. If this occurs, follow the on-screen instructions. If you are still unable to obtain GPS initialization, refer to the service manual for diagnostic information.

7. When initialization is complete, the disclaimer screen appears. Select **OK**.

NOTE: Do not enter a destination yet. For the navigation system to calculate a route, it must align the current location to a mapped road (map matching). This happens when you start driving.

8. Drive the vehicle at least a half-mile from your dealership, and find a safe place to park. Then set the map scale to 1/20 by turning the interface dial clockwise.
- Make sure the VP (vehicle position) icon moves smoothly as you drive and does not jerk from one point to another. Also make sure the icon points in the direction the vehicle is traveling; it does not "dog track" or spin.
 - Make sure the VP icon smoothly follows the vehicle's maneuvers as you make turns.
 - After driving a few hundred feet on a road that is displayed on the map, the name of the road you are driving on should appear across the bottom of the screen.

NOTE: Refer to the service manual symptom troubleshooting if the navigation system fails to map-match after the vehicle is driven for more than a couple of miles on a displayed road.

9. With the map screen displayed, press and release the NAVI TALK button.

10. When you hear the beep, say "find the nearest Acura dealer." The system should display a list of Acura dealers.

11. Turn the interface dial to highlight your dealership, then push in on the ENTER button.

12. On the **Calculate Route to** screen, select **OK**.

13. The system then calculates a route and displays it as a blue line. If you are in a rural area with unverified roads, you may see a blue vector line pointing in the direction of your destination or a blue/pink dotted line.

14. Follow the voice guidance back to your dealership. The voice guidance should work even with the audio system turned off.

15. With the map screen displayed, check the system interaction with the audio system and the lower display. Press and release the NAVI TALK button. After the beep, say "XM channel 125." The lower display should change to XM channel 125 and show the **Weather Channel**.

16. With the map screen displayed, check the system interaction with the climate control system. Turn on the climate control system by selecting **AUTO**. Then press and release the NAVI TALK button. After the beep, say "temperature 68 degrees." The lower display should change to 68 degrees.

17. The time shown by the system should be correct; the system gets it from the GPS satellites.

For areas that do not follow daylight saving time, you may have to adjust the time settings. Go to **clock adjustment** in the **Setup** screen, and set **Auto Daylight** to **OFF**.

If your dealership is located near a time zone boundary, set **Auto Time Zone by GPS** to **OFF**. The clock then keeps the "home" time if the client routinely drives across the time zone boundary.

18. Press the DISPLAY MODE button to verify that the display changes between the **Day**, **Night**, and **OFF** modes.

19. If your dealership is located in a metropolitan area that has traffic incident or traffic flow data available (see **ACURALINK REAL-TIME TRAFFIC INFORMATION**), do this:

- Select one of the traffic map scales (1/2-, 1-, 2-, or 5-mile scales) by rotating the dial.
- Use the interface dial to scroll to the downtown area of your city. Freeways and other main roads should show traffic flow data as red, yellow, or green lines for traffic flow in one or both directions on the road.
- Small diamond-shaped “traffic incident” icons may be shown. If so, scroll over an icon and press in the interface dial to see the details.
- Partially displayed traffic data does not indicate a problem with the navigation system. Traffic flow and density varies from day to day and from one road to another. If your area has traffic, but it is not displaying on the screen, refer to the Navigation section of the *2009 TSX Service Manual*.

20. Press the **SETUP** button, or use the voice control system and say “Set up.” Then verify these settings:

- Volume is set to the midrange.
- Brightness is set so the display can be seen in bright sunlight.

21. In the setup mode, select **More**, then **Personal Information**, then **Previous Destinations**. Follow the screen prompts to delete all previous destinations except your dealership.

System Limitations

These issues could arise during the TQI or after installing replacement parts to repair the system. Refer to the navigation system manual or the quick start guide for basic operation.

To minimize distractions, always use the voice control system to operate the navigation system while driving. Always verify the audio and visual route information by carefully observing roadway signs, signals, etc. Use your own good judgment, and obey traffic laws while driving.

The navigation system has these limitations:

- The GPS (global positioning system) satellites used by the navigation system are operated by the U.S. Department of Defense. For security reasons, certain inaccuracies are built into the GPS. This can cause occasional positioning errors of up to several hundred feet. If the navigation system indicates your position incorrectly, wait several seconds until it corrects itself. The system may also correct itself after you make a turn or cross a road.

- The routes calculated by the system may not always be what you consider to be the most direct ones. Try different routing methods to obtain the best route. Even the direction your vehicle is pointing influences the route calculation.
- Since businesses fail or move to new locations, some information may be inaccurate. Also, route guidance may conflict with actual road conditions, such as street closures, construction, and detours.
- Occasionally, the navigation system may reboot due to excess cold, heat, or shock, or from recalculating a route too many times. Rebooting does not necessarily indicate a need for service.
- The GPS antenna receives location information from orbiting satellites. Anything that blocks or interferes with the signal affects accuracy. The GPS signal can be blocked or interfered with (vehicle position shown incorrectly on the map) by:
 - Aftermarket metallic window tinting above or to the sides of the GPS antenna.
 - Aftermarket vehicle theft location systems mounted near the navigation control unit or display.
 - Radar detectors, cell phones, or other aftermarket electronic accessories placed near the navigation control unit or display.
 - Outside electrical interference from overhead power or trolley lines or broadcast sources.
 - Tall trees or buildings near or over the vehicle. They can cause the system to show the vehicle on an adjacent street. This should automatically correct itself when the obstruction is gone.
- In some cases, a city name, road name, or address range may be incorrect or missing from the system. The possible causes are:
 - The city name may be listed under a larger metropolitan area, or as an unincorporated area. Try selecting the street name first. If it is a smaller city in a rural area, only the main road may be shown.
 - If the street name cannot be found, is shown incorrectly on the map, or is not drawn correctly, it may be because it is a new road, or it is in an unverified area.

NOTE: See the navigation system manual for more information.

- If the location of your dealership is shown incorrectly or needs to be changed, report it to your service manager or DPSM.

- If the DVD door in the control unit is opened or the DVD is removed, the system will reboot. Scratches or fingerprints on the surface of the DVD can cause system errors. Always handle the DVD by its edges. A DVD with a white label (Canadian vehicles may have a gray label) is used for this system. It cannot be interchanged with a DVD from a different vehicle that has a different-colored label.

MAP COVERAGE AREAS

The map database covers the 48 contiguous U.S. states, Hawaii, and parts of southern Canada. Coverage for the U.S. contains accurately mapped (verified) metropolitan areas and less accurate (unverified) rural coverage. In Canada, the database covers major metropolitan areas and major roads connecting those metropolitan areas. Coverage extends to about 100 miles from the U.S. border. A gray DVD that provides coverage for northern Canada is also available for purchase (see ORDERING A DVD).

Map Types

The maps on the screen contain **verified roads** and **unverified roads**.

Verified roads have been driven by the database vendor. Information about the road's average speed, turn restrictions, or whether it is a one-way street are contained in the navigation system. Roads within metropolitan areas (detailed coverage), interstate freeways, and major roads connecting cities are typically verified. They can be recognized on the screen (daytime setting) as the darker colored roads.

Unverified roads may be found in rural areas. The information about these roads may have inaccuracies. Therefore, they are shown for reference only. They can be recognized on the screen (daytime setting) as a light brown color.

Guidance in unverified areas depends on the setting for **Unverified routing** made during setup. If the setting is **OFF**, you will see a dotted blue vector line pointing to your destination when driving in an unverified area. You will have to manually choose roads from the map to get to your destination. If the setting is **ON**, you will see a blue/pink route line and receive route guidance. Pop-up cautionary boxes appear while on the route to alert you when entering unverified areas.

NOTE: This feature is set to **OFF** from the factory.

Detailed Coverage

Many cities and metropolitan areas are fully mapped. Detailed map coverage includes:

- Roads with names

- Service roads without names that serve as access to rest areas along motorways
- Main paved roads without names that are within or lead to included polygons (places such as large shopping centers, universities, golf courses, parks, etc.)
- Paved roads without names that are used only by public vehicles
- Ferry connections for automobiles via rail or boat
- Walkways with names and addresses
- Undefined traffic areas with more than 10,800 square feet
- Ramps, roundabouts, special traffic figures, turn lanes, and U-turn lanes
- Service roads
- Pedestrian streets and pedestrian zones

For a list of current detailed coverage areas by country and state/province, refer to the navigation system manual or www.acuranavi.com. Select the **View Current Coverage Map** link, use the pull-down menu to select the vehicle **Year** and **Model**, then select **View Coverage**.

Non-Detailed Coverage

Cities and towns in the non-detailed map coverage area may have incomplete mapping. Only major federal, state, and county roads leading to and through these cities and towns are mapped. Verified roads are shown in black. All other streets are unverified and are shown in light brown. If you see an asterisk (*) next to the city name:

- Streets may be missing completely, or shown in the wrong location.
- Street address information may be unavailable, and you may be prompted to use the map to locate your destination.
- Streets may be named incorrectly, or have no name (**unnamed road**).

Guidance in unverified areas depends on the setting for **Unverified routing** made during setup. See "Driving to Your Destination" in the navigation system manual for more information.

HAWAII SYSTEM SETUP

The white navigation DVD contains maps for the 48 contiguous states, parts of southern Canada, and Hawaii. If the vehicle is sold in Hawaii or relocated from the mainland to Hawaii, you must change the map coverage so the applicable maps are displayed.

1. Press and hold the **MENU**, **MAP/GUIDE**, and **CANCEL** buttons at the same time. The display changes to the main diagnostic menu.
2. Select **Coverage area**. Then select either **Hawaii** or **US** coverage. The system may reboot.
3. Start the vehicle, and move it to an open area so the system can acquire a GPS signal.
4. After the system has initialized, do the map matching by driving the vehicle on a road until the road name appears at the bottom of the map screen.

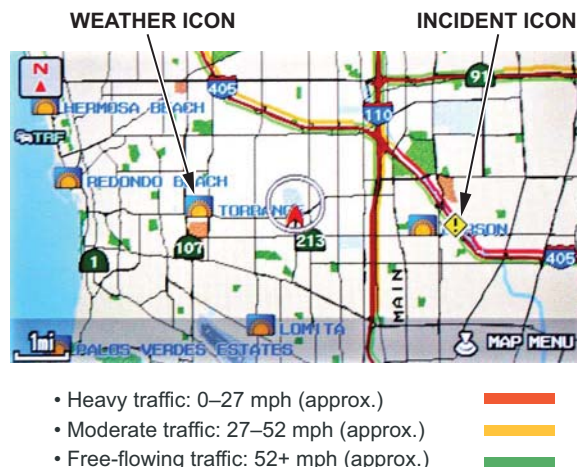
NOTE:

- If a vehicle is relocated from Hawaii to the mainland, you must change the **Coverage area** to **US**.
- When you change the coverage area, any previous destinations, address book, and other system settings are changed to the factory defaults.
- XM Satellite Radio is not available in Hawaii, so there is no AcuraLink coverage.

ACURALINK REAL-TIME TRAFFIC INFORMATION

Current traffic information can be displayed by the system in many metropolitan areas. Information is displayed as traffic flow bands of different colors on selected roads, or as diamond-shaped icons.

The amount of traffic coverage varies considerably from city to city. Go to www.acura.com/realtimetraffic, select **Real-Time Traffic on the TSX**, then select **Mini-Site** to get an up-to-date list of the current cities with traffic coverage, and the actual roads covered within each city. The link also provides a demonstration of the system that explains the meaning of traffic flow color bands, and incident icons displayed on the map.



Incident icons indicate accidents, construction, or weather-related incidents:

NOTE: Make sure the system work by checking the icons and traffic flow on the map screen. Do not to confuse weather incident icons (yellow diamond) with weather icons (blue or black square).

Incident Icons



XM WEATHER INFORMATION

XM Radio now offers XM weather that shows current local weather as weather icons on the map screen. These are different from weather related traffic incident icons. The weather icons are:

Daytime mode



Clear



Partly Cloudy



Cloudy



Fog



Rain



Freezing Rain



Snow

Nighttime mode



Clear



Partly Cloudy



Cloudy



Fog



Rain



Freezing Rain



Snow

You can also see weather warnings. Say or select **Warning Map**. The display changes to show weather warnings for the selected area.



ORDERING A DVD

Replacement DVDs can be ordered online at www.acuranavi.com, then select **ORDER NAVIGATION DVD**. You can also call the Acura Navigation Disc Fulfillment Center at **(888) 549-3798**. Both methods require a credit card.

The DVD for this model has a white label and cannot be ordered through the parts system. The following DVDs will not work in this navigation system:

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

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

- Enhanced maps and points of interest (POI) coverage
- Fixes for minor software bugs
- Additional features

NOTE:

- Map matching must be done any time the DVD is removed or replaced.
- Always order navigation DVDs on an as-needed basis. During a typical model year, each color DVD may undergo half a dozen "software only" version upgrades to fix minor issues on some or all models the DVD supports. This is normal. Usually, only the letter at the end of the version number changes, while the database (maps and POIs) remains unchanged.
- Never promise your clients future free updates. There are no free programs for updating the navigation DVD. The online DVD order site provides information when an update for a particular DVD is available.
- Damaged discs are not covered by warranty unless the disc is damaged by the navigation unit.