

## March 7, 2017

# 2017 MDX Sport Hybrid: TQI and New Model Service Information

#### AFFECTED VEHICLES

Year	Model	Trim Level	
2017	MDX Sport Hybrid	With Technology Package	
		With Advance Package	

#### INTRODUCTION

This bulletin covers the total quality inspection (TQI) of the 2017 MDX Sport Hybrid. It includes these procedures:

1.	Remove the Exterior Protective Coatings	10.	Check the Power Control Unit (PCU) Coolant Level	
2.	Install the Fuses	11.	Initialize the Audio-Navigation Unit Anti-Theft Function, and Set the AM/FM Audio Unit Presets	
3.	Remove the Interior Protective Coverings	12.	Check/Refresh SiriusXM <sup>®</sup> Radio Dealer Demo Service (Except in Alaska and Hawaii)	
4.	Install the Floor Mats	13.	Check the ACC, Collision Mitigation Braking System <sup>™</sup> /Forward Collision Warning, LKAS, Lane Departure Warning/Road Departure Mitigation, and Auto Idle Stop Indicators	
5.	Check the 12-Volt Battery	14.	Check the Head-Up Warning (HUW) Indicator	
6.	Install the Body Plugs	15.	Check Bluetooth <sup>®</sup> HandsFreeLink <sup>®</sup> (HFL)	
7.	Install the Front License Plate Holder	16.	Check the Moonroof One-touch Feature	
8.	Set the Tire Pressures	17.	Reset the AcuraLink Control Unit	
9.	Do the PCM Idle Learn Procedure			

To do the TQI for the navigation system, be sure to complete S/B 17-014, 2017 MDX Sport Hybrid: TQI of the Navigation System.

CLIENT INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Acura automobile dealer. This bulletin also includes this new model service information:

1.	Heated Windshield (Advance Trim)	6. Real Wood Su	rfaces (Advance Trim )
2.	Auto High Beams	7. Charge and Da	ata Ports
3.	Surround View Camera (Advance Trim)	8. Capless Fuel S	System
4.	Walk-Away Auto Lock	9. Electric Parkin	g Brake (EPB)
5.	Power Folding Mirrors	10. Automatic Bra	ke Hold System

#### **CLAIM INFORMATION**

Reimbursement Time: 1.4 hours

NOTE: This time includes the TQI of the navigation system.

#### **TQI PROCEDURES**

#### **Before Starting**

Review these items:

- Perfect Delivery documents, especially the information on battery maintenance and tire pressures
- TQI checklist in the maintenance journal

Make sure you record the TQI on the appropriate pages of the maintenance journal. The TQI is not done until this bulletin and the TQI checklist are both complete. Note on the repair order any repairs or problems that cannot be fixed within a few minutes.

Remove all TQI items from the cargo area and glove box.

To lower parasitic draw, the vehicle comes from the factory with the No. 15 RADIO (20 A) and No. 16 BACKUP (10 A) fuses removed from the main under-hood fuse box. With them removed, the engine will not start when you apply the brake pedal and press the ENGINE START/STOP button.

To start the engine with these fuses removed, you must do this:

1. Press the ENGINE START/STOP button once.



2. When the indicator blinks, touch the keyless remote to the ENGINE START/STOP button.



The indicator will switch from blinking to steady when communication is complete.



3. Start the engine by pressing the ENGINE START/STOP button while pressing the brake pedal. You must start the engine within **10 seconds** of touching the remote to the button.

#### 1. Remove the Exterior Protective Coatings

Carefully remove all of the exterior protective coatings. See S/B 96-009, Removal of Protective Coatings During TQI.

#### 2. Install the Fuses

To lower battery drain during vehicle shipping, the No. 15 RADIO (20 A) and No. 16 BACKUP (10 A) fuses are removed from the main under-hood fuse box and stored in the glove box. Make sure the ignition is turned to OFF before installing these fuses.



#### Vehicle Interior

#### 3. Remove the Interior Protective Coverings

There are several protective coverings on the interior trim pieces and some areas of the carpet. Carefully remove all of them with clean hands to avoid soiling any surfaces.

To remove the protective covering from the leather-wrapped steering wheel, pull the top of the covering toward you. Do not try removing it by pulling the top away and down from you, or you will damage the cable reel. Also, do not use any cutting tools to remove the covering; you could damage the leather.

If any of the interior is dirty, clean it with mild soap or an Acura cleaning product such as Leather & Vinyl Cleaner (P/N 08700-9214A) or Carpet Spot Remover (P/N 08700-9215A). Clean real wood surfaces (Advance trim only) with a mild detergent and a soft, damp cloth. Be sure to wipe off any excess liquid to avoid damaging the wood. Do not use other cleaning agents on this wood; such products could damage it.

#### 4. Install the Floor Mats

Install the floor mats where they belong. Be sure to place the eyelets in the driver's and front passenger's floor mats over the anchors in the floor and turn the knobs **clockwise** to the lock position. Also, do the same for the second row floor mats. The anchors for those mats are under the front seats.



#### Under-Hood (Engine Cold)

#### 5. Check the 12-Volt Battery

This vehicle comes with an absorbent glass mat (AGM) 12-volt battery. To ensure long battery life and that the client gets a fully charged battery as outlined in S/B 89-006, *Battery Maintenance at Dealers*, it must be checked at these times:

- · When the vehicle first arrives at the dealership
- During the TQI (if done at a later date)
- At regular intervals
- Just before vehicle delivery

If you plan to keep the vehicle in long-term storage, be sure to remove the No. 16 BACKUP (10 A) fuse.

To access the battery, you must first remove the front bulkhead cover. To do that, follow these steps:

1. Starting on the passenger side, lift up the far edge of the cover. You will hear a pop as the striker in the cover releases from the latch in the body.



- 2. Using even, upward pressure, continue releasing the strikers from the latches, working your way toward the driver's end of the cover. There are a total of 10 strikers and latches.
- 3. Make sure all of the strikers and latches remain in place. Use the Striker/Latch Kit (P/N 06910-TZ5-A00) to replace any that are missing or damaged.

Test the battery with the ED-18 battery tester using S/B 88-016, *Battery Testing and Replacement*. Make sure the ED-18 has the latest software installed before using it. See S/B 09-027, *ED-18 Battery Tester Update Information*.

If the test results show **GR8 DIAGNOSTIC NEEDED**, you must charge the battery with the GR8 battery diagnostic station. Make sure the GR8 has the latest software installed before using it. See S/B 09-034, *GR8 Battery Diagnostic Station Update Information*.

NOTE: When charging an AGM battery, **always** select **AGM Battery**. Serious damage can result if you select **Standard Battery (FLA)**. Also, make sure the negative battery lead is connected to the negative battery post. The temperature probe is in the handle of the negative lead. The GR8 monitors battery temperature during charging so that it does not overheat and destroy the battery. See the *ServiceNews* article "AGM Battery Testing and Charging Precautions," posted in **May 2015**, to learn more about it.

Write down the **GOOD BATTERY** 10-digit code in the maintenance journal. During the TQI, write down the code in the "Under Hood (Engine Cold)" section. Then, at vehicle delivery, test the battery again, charge if needed, and write down the new code in the "Final Inspection (At Delivery)" section.

To install the front bulkhead cover, place it into position, then press down firmly at each striker location until you hear a click. Be sure the bulkhead center section outer corners are tucked **under** the grille seal.



# Vehicle Exterior (Vehicle Raised to Full Height)

#### 6. Install the Body Plugs

Install the body plugs on each side of the vehicle as shown.



# 7. Install the Front License Plate Holder

If state regulations require the use of a front license plate, do this:

1. Find the two dimples near the middle of the front bumper.



2. Center the holes in the front license plate holder over the dimples, then attach the holder with the two long Phillips-head screws.

The remaining screws in the kit are for attaching the front and rear license plates.

# Vehicle Exterior (Vehicle Lowered to Ground)

# 8. Set the Tire Pressures

To prevent flat spots during vehicle shipping and storage, the tires are inflated to over **40 psi**. If the vehicle is going into dealer storage, leave the tire pressures at **40 psi** until it is sold (see the *Perfect Delivery Action Plan*).

If the vehicle is moved to the sales lot or is sold, adjust the tire pressures as follows:

NOTE:

- Be sure to follow this procedure exactly as written. If you fail to do this, the MID may not show the tire pressures.
- If you are in a cold climate region, make sure the tires are at the same temperature as the outside air before adjusting the pressures; otherwise, the Low Tire Pressure/TPMS indicator may come on in cold weather.
  - 1. Turn the ignition to ON.
  - 2. Use a tire pressure gauge with a bleeder valve to quickly lower the pressure in each tire to around 28 psi.
  - 3. Set the pressure in each tire to the recommended value listed on the driver's doorjamb label, and check it with a hand-held gauge.
  - 4. Test-drive the vehicle for at least **2 minutes** above **15 mph**. If the MID does not show the tire pressures, make sure you completed the test-drive as specified.

#### Under-Hood (Engine Idling)

# 9. Do the PCM Idle Learn Procedure

To ensure a steady engine idle, do the PCM idle learn procedure as follows after installing the No 15 RADIO (20 A) and No. 16 BACKUP (10 A) fuses:

- 1. Make sure all electrical items (A/C, audio unit, rear window defogger, lights, etc.) are turned off.
- 2. Start the engine, and let it reach operating temperature (the cooling fans cycle twice).
- 3. Let the engine idle for 10 minutes with the throttle fully closed.
- 4. Turn the ignition to OFF.
- 5. Jump the SCS line with the i-HDS.
- 6. Wait 60 seconds, then exit the SCS mode.

The idle learn procedure must also be done after updating or replacing the PCM. If does not need to be done after clearing DTCs.

#### 10. Check the Power Control Unit (PCU) Coolant Level

Check the level of the PCU coolant. Top it off to the MAX mark when the cap is cool to the touch and the ignition is turned to OFF. The hybrid system uses the same type of coolant as the engine cooling system.





#### Vehicle Interior

#### 11. Initialize the Audio-Navigation Unit Anti-Theft Function, and Set the AM/FM Audio Unit Presets

- 1. Do S/B 17-014, 2017 MDX Sport Hybrid: TQI of the Navigation System.
- 2. Enter a local AM or FM station on all of the audio unit presets. To enter a station, tune to it, change the screen to the preset screen, then press and hold the preset number that you want to store that station.

#### 12. Check/Refresh the SiriusXM® Radio Dealer Demo Service (Except in Alaska and Hawaii)

The audio system comes from the factory activated with the SiriusXM<sup>®</sup> Radio dealer demo service. Once you install the No. 15 RADIO (20 A) and No. 16 BACKUP (10 A) fuses, the system should receive the full range of available SiriusXM<sup>®</sup> channels. You can see a full list of channels at *siriusxm.com*.

While watching the audio display, tune to several channels within the full channel lineup. If you can tune to all of the channels, the dealer demo service is activated.

# **13.** Check the ACC, Collision Mitigation Braking System<sup>™</sup>/Forward Collision Warning, LKAS, Lane Departure Warning/Road Departure Mitigation, and Auto Idle Stop Indicators

When you first turn the ignition to ON, these indicators should come on for a few seconds and then go off:

- ACC (Adaptive Cruise Control)
- Collision Mitigation Braking System<sup>™</sup>/Forward Collision Warning
- LKAS (Lane Keeping Assist System)
- Lane Departure Warning/Road Departure Mitigation
- Auto Idle Stop



# 14. Check the Head-Up Warning (HUW) Indicator

When you first turn the ignition to ON, the HUW indicator should blink and then go off.



## 15. Check *Bluetooth*<sup>®</sup> HandsFreeLink<sup>®</sup> (HFL)

To ensure HFL works and is ready to use, start the engine, then press and hold the Hang-up/Back button on the steering wheel for **10 seconds**. You should hear "The TCU is OK." If you do not hear this message, see the service information for troubleshooting information.



#### **16.** Check the Moonroof One-Touch Feature

Make sure the moonroof one-touch feature works properly:

- · When you firmly pull the moonroof switch backward and release it, the moonroof should fully open.
- When you firmly push the switch forward and release it, the moonroof should fully close.
- · When you push up on the switch and release it, the moonroof should tilt.

If the moonroof does not work properly, do this procedure to reset the control unit:

NOTE: This procedure must be done after replacing any moonroof component or after installing the accessory moonroof visor. It does not need to be done after disconnecting the battery.

- 1. Close the driver's door, and leave it closed until the procedure is finished.
- 3. Press the tilt switch to put the moonroof in the tilt position.
- 4. Turn the ignition to OFF.
- 5. While pressing and holding the tilt switch, turn the ignition to ON.
- 6. Release the tilt switch, and turn the ignition to OFF.
- 7. Repeat steps 3 and 4 four more times.

- 8. Hold the moonroof switch in the Open position until the moonroof fully opens.
- 9. Hold the moonroof switch in the Closed position. The moonroof will close and then go to the tilt position. Keep holding the moonroof switch until the moonroof is tilted fully open.
- 10. Release the moonroof switch.
- 11. Make sure the one-touch feature works in the Open, Close, and Tilt positions.

#### 17. Reset the AcuraLink Control Unit

When the No. 15 RADIO (20 A) and No. 16 BACKUP (10 A) fuses are removed during vehicle shipping, the AcuraLink control unit sets DTCs. You need to clear them during the TQI with this procedure:

NOTE: After installing the fuses, wait for at least 30 seconds before doing this procedure.

- 1. Turn the ignition to ON.
- 2. On the navigation disclaimer screen, select OK.
- Press and hold the BACK, MENU, and NAV buttons at the same time until the main diagnostic screen appears. Then, select Detail Information and Settings.
- 4. Turn the interface dial to select Diag CRM, then press the ENTER button.
- 5. Turn the interface dial to select Clear DTC Log, then press the ENTER button.
- 6. Turn the interface dial to select YES, then press the ENTER button.
- 7. Select OK by pressing the ENTER button.
- 8. Turn the interface dial to select Return, then press the ENTER button.
- 9. Turn the interface dial again to select **Return**, then press the ENTER button. This returns you to the navigation system screen.

#### NEW MODEL SERVICE INFORMATION

#### 1. Heated Windshield (Advance Trim)

This vehicle comes with a heated windshield that warms the wiper zone. The heater will automatically come on when the outside temperature is around **39°F** or lower and automatically go off when it is around **42°F** or higher. You can also manually turn on the heater with the switch on the left side of the instrument panel.

#### 2. Auto High Beams

This vehicle comes with auto high beams. When driving at night around **25 mph** with the headlight lever in the low beam position and the switch turned to AUTO, the system switches between the low and high beams depending on the surrounding conditions. See the owner's guide or the service information to learn more about this.

#### 3. Surround View Camera (Advance Trim)

This vehicle comes with four cameras to help with blind spots. See the owner's guide or the service information to learn more about this.

#### 4. Walk Away Auto Lock

This vehicle comes with a walk away auto lock feature. If this feature is activated, when you walk away from the vehicle while carrying the remote transmitter, the doors and tailgate will automatically lock if they are closed and no additional remote transmitter is inside the vehicle. See the owner's guide or the service information to learn more about this.

#### 5. Power Folding Mirrors

This vehicle comes with power folding mirrors. You can manually fold or extend them with the switch on the driver's door or set them to automatically fold or extend when using the keyless access system. See the owner's guide or the service information to learn more about this.

#### 6. Real Wood Surfaces (Advance Trim)

This vehicle comes with real wood trim pieces. These pieces should be cleaned only with a soft, damp cloth and mild detergent. Use of other cleaning agents could damage the wood. Wipe away excess liquid to prevent damaging the wood.

#### 7. Charge and Data Ports

This vehicle comes with charge and data ports. The Technology trim has four 2.5 amp charge ports and one 1.0 amp data port. The Advance trim has two more charge ports in the 3<sup>rd</sup> row seating area for a total of six 2.5 amp charge ports and one 1.0 amp data port.

Charge ports can be used only to charge electronic devices and do not connect to the audio system. The data port can be used to charge some electronic devices and is connected to the audio system.

#### 8. Capless Fuel System

This vehicle comes with a capless fuel system. See the owner's guide or the service information to learn more about it.

#### **9.** Electric Parking Brake (EPB)

This vehicle comes with an EPB. See the owner's guide or the service information to learn more about it.

#### **10.** Automatic Brake Hold System

This vehicle comes with an automatic brake hold system. See the owner's guide or the service information to learn more about it.

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