



NOTE: The  $\succ$  mark is used as a reminder, indicating an article that has been repeated from a previous issue of Tech Talk.

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## GROUP 00 - General

<u>RECOMMENDED LUBRICANTS CHART</u> — All models. A chart showing recommended lubricants – and their MMNA part numbers – can be found on the Mitsubishi Dealer link under service –-> service tech resources –-> Service Related Items –-> Technical Worksheets –-> Transmission, Transfer Case And Differential Lubricants.

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## GROUP 11 – Engine

**NO CRANK, NO START DURING EXTREME** <u>**COLD WEATHER**</u> — All with OSS. When attempting to start the vehicle after parking for an extended time during extremely cold weather, some customers may report no response to pressing the START/STOP button to start the vehicle. They may also report the LED in the button does not illuminate and "Immobilizer System Service Required," is displayed in the MID. First, perform a check for ALL DTCs. If "DTC B1139 (KOS) Authenticate Timeout" is recorded, put the vehicle in the shop with the windows open and allow it to warm up for a while. If the starter then cranks and the engine starts, contact Techline with any DTCs found to assist in an ongoing investigation. Provide details of the ambient temperature during the time the vehicle was parked. Include any other contributing factors reported by the customer.

NOTE: Power door lock function may also be affected.

This investigation closes March 31, 2014.

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## **GROUP 12 – Engine Lubrication**

**MAINTAINING PROPER OIL LEVEL** — All models. Dealers have reported the appearance of "foam" on the engine oil gauge (dipstick) when checking oil in some vehicles, especially the 2014 Mirage. This could be tiny air bubbles in the oil caused by overfilling the engine oil, possibly due to checking the level too soon after stopping the engine. Overfilling can create oil cavitation and cause the bubbles, leading to reduced oil pressure. The 3A92 engine in the Mirage is particularly susceptible to overfilling, mostly due to how long oil takes to drain back to the oil pan. When adding oil to the engine, make sure you do not add oil above the "maximum" mark on the dipstick.

• Owners manuals advise that engine oil level should be checked before starting the engine (cold) and the level should be maintained in the "good" range, between the minimum and maximum marks on the dipstick as shown.



• Adding oil to a warm engine immediately after stopping could result in an overfill

condition. The drain back of oil into the oil pan varies by engine, and can take 3–5 minutes in some cases. Wait at least this long before checking oil in a warm engine.

Refer to the owner's manual and/or service manual for additional information on checking and adding engine oil.

### **GROUP 15 – Intake and Exhaust**

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ATIN-13-15-001: CATALYTIC CONVERTOR (DTC P0421 OR P0431 MAY BE SET) WARRANTY EXTENSION — 2006-2008 Galant Eclipse and Eclipse Spyder V6. ATIN-13-15-001 was emailed to dealers December 19, 2013 and states:

"A catalytic converter warranty extension will be launched today, December 19, 2013 for certain 2006 – 2008 Galant V6, 2006 – 2008 Eclipse V6, and 2007 – 2008 Eclipse Spyder V6 registered in the states of California, Maine, Massachusetts and Vermont. This warranty extension will also apply to certain 2008 Galant V6, 2008 Eclipse V6, and 2008 Eclipse Spyder V6 registered in the states of Connecticut, Pennsylvania, and Rhode Island.

#### Only the specified Models and Model Years registered in the specified states are eligible for this catalytic converter warranty extension.

The TSB outlining the warranty extension will be available today, December 19, 2013 on MEDIC and MDL.

Notification letters will be sent to owners of affected vehicles, notifying them of the catalytic converter extended warranty.

Please refer to TSB-13-15-001 or Warranty Bulletin WB 2014-011 for further information."

# GROUP 22 – Manual Trans / TC–SST

**DIFFICULTY IN COMPLETING TC-SST PLAUSIBILITY CHECK** — 2008–2014 Lancer Evolution, Lancer/Lancer Sportback RALLIART. After replacing a Mechatronics assembly (valve body) or clutch assembly in a TC-SST, remember these three requirements for completing the Plausibility Check during Teach-in;

- 1. Engage the parking brake,
- 2. Run the engine until transmission temperature is at least 104° F, and

3. <u>Depress the brake pedal for the duration of</u> <u>the Plausibility Check or it will not complete</u>.

The ECU must see brake pedal input before the check can start. It's a built in safety mechanism to prevent the vehicle moving forward as the gears are shifted during the check.

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#### **GROUP 35 – Brakes**

TIN-13-35-001: SR-13-009 - RECALL C1309W – LANCER EVOLUTION CLUTCH MASTER CYLINDER RECALL - DISCONTINUING THE 100% PHOTO REQUIREMENT OF PRE-REPAIR BREMBO CALIPERS WITH ADVISEMENT THAT PHOTOS ARE NOW ONLY REQUIRED ON AN EXCEPTION-ONLY BASIS — 2008-13 Lancer Evolution w/manual transmission. TIN-13-35-001 was emailed to dealers on December 20, 2013 and states:

An important reason for the photo documentation requirement is to protect dealers from possible future contentions from an owner that the caliper finish damage was caused by the dealer's prior recall repair procedure. Photos of the pre-repair Brembo caliper condition on the PRC would help exonerate the dealer when the damage was already present at the time of the recall repair.

To simplify the recall repair and claim process, effective immediately, dealers are no longer required to take PRC photos of every vehicle as a condition for claim payment. It is now at the individual dealer's discretion, but highly recommended, to document any existing brake caliper conditions prior to repair by taking photos and entering a damage description in the Photo Required Condition system (PRC) on an exception-only basis.

Pre-repair photo documentation is still required whenever a dealer encounters any type of existing brake caliper finish issue, such as chipping, fading, peeling, overheating, fluid leakage from a prior brake system repair or ANY other pre-existing condition.

If, in the future there is a contention that a customer's damaged calipers may have been due to a dealer's recall claim repair process, PRC archived photos showing the caliper's pre-repair condition will be a major piece of evidence to exonerate the dealer and aid in avoiding a very costly comeback.

In summary, if photos of the calipers are not taken and loaded to PRC prior to the recall repair, MMNA will assume the dealer inspected the calipers and that no finish damage was present at the time of the repair.

SR-13-009 will be updated to incorporate this policy change."



#### **GROUP 42A – Body**

<u>TIN-13-42A-002: 2014 MIRAGE TPMS</u> - 2014 Mirage. TIN-13-42A-002 was emailed to dealers December 6, 2013 and states:

"If you diagnose a malfunctioning TPMS transmitter on 2014 Mirage, please contact TechLine for assistance. **DO NOT** use the metal type TPMS transmitter (p/n 4250B975) as a replacement. Metal TPMS transmitters will not properly fit the wheels of the Mirage."

## GROUP 54 – Chassis Electrical

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✓ UPDATE - <u>EACTORY INSTALLED FOG</u> <u>LIGHT SWITCH WILL BE STANDARD ON</u> <u>SOME OUTLANDER SPORT/RVR</u> — 2014 Outlander Sport. Beginning the first week of December, 2013, ALL Outlander Sport/RVRs will be equipped with a combination switch assembly (turn signals, headlights) that includes an integral fog light switch. Vehicles equipped with FOGs A12, A13 (2WD) and A14 (4WD) have only the switch installed. The actual fog light units and additional wiring must be installed by the POE or dealer. With this feature, installation of accessory fog lights on vehicles not equipped with them is made easier.

#### HANDS FREE SYSTEM DOES NOT RESPOND

**TO VOICE COMMANDS** — 2014 models <u>without</u> MMCS Navigation. If you find during PDI that there is no response when checking the hands free speech commands in affected vehicles, it may be due to a jumper connector (loop connector) not installed at connector C-135. The jumper connector is blue in color and completes the hands free microphone circuit on vehicles built with an HFM. Vehicles with MMCS navigation are not affected as they have a different wiring harness.



If you find the jumper connector missing, search ASA CAPS for PNC 83943 and order the correct part number for the model.

<u>HOWLING NOISE FROM AUDIO ANTENNA</u> — 2014 Mirage. If a customer reports a howling noise between 30 and 50 mph, it may be due to the angle of the roof mounted audio antenna. Currently, the noise has only been reported on vehicles where the antenna is positioned in the most upright position.



If you confirm the howling noise, readjust the antenna to approximately 45° or lower and retest. Also, confirm the antenna is adjusted to 45° or lower during PDI.





## GROUP 60 – Recalls & Campaigns

ATIN-13-SC-004-A: ECM REPROGRAM-MING FOR MIL ILLUMINATES, DTC P1241 OR P061A STORED IN ECM — 2008-14 turbocharged Lancer based models. ATIN-13-SC-004-A was emailed to dealers December 19, 2013 and states:

"A service campaign will be launched December 19, 2013 to update the ECM software programming in certain 2008 – 2014 Lancer Evolution, 2009 – 2014 Lancer Ralliart, and 2009 – 2011 Lancer Sportback Ralliart built before September 25, 2013. To maximize customer satisfaction with the quality of their new vehicle, we recommend this service campaign be completed prior to vehicle delivery to the customer. If this is not possible, the vehicle can still be delivered, but please ask the customer to bring the vehicle back to the dealership to have the campaign completed.

This service campaign will be conducted in the U.S. and Puerto Rico. A Service Campaign Bulletin outlining the reprogramming procedure will be available December 19, 2013 on MEDIC and MDL.

In certain affected vehicles, normal Electric Throttle Valve (ETV) fluctuations may cause actual torque to exceed Permitted Torque at low engine speeds. An improper Permitted Torque threshold may then cause false MIL illumination. A software update optimizes the Permitted Torque threshold value to minimize false MIL illumination.

If an affected vehicle is brought to your service department, you must always FIRST explain to the customer what the reprogram will do and get customer permission to reprogram the ECM.

Affected new vehicle inventory VINs can be reviewed on the Mitsubishi Dealer Link in the Most Recent: Open Campaign List available under the service section of "e-reports" beginning today.

#### IMPORTANT

To maximize customer satisfaction with the quality of their vehicle, affected new or used inventory vehicles should be remedied before the vehicle is delivered. Dealers must check their inventory vehicles' VINs on the Warranty Super Screen to verify whether the vehicle is involved in this service campaign. Notification letters will be sent to owners of affected vehicles, requesting they contact their local Authorized Mitsubishi dealership to schedule an appointment to have this service campaign performed.

When checking the Warranty Super Screen for the applicability of this campaign, please check for any other open campaigns and advise the customer. Always get the customer's approval before completing a campaign."



## **GROUP 66 – Accessories**

USING REAR PARK ASSIST SENSOR TEMPLATES — 2014 Outlander, Outlander Sport, Lancer-based vehicles. Some technicians have reported the templates used for locating and drilling holes for the rear park assist sensors are inaccurate. It is possible that printer variances have changed the dimensions of the drawing. Please note, the template cautions you to "Always confirm the length of the 50mm scale markers before drilling." After printing the template, use a ruler to measure the distance between the positioning arrows in the upper left corner of the drawing. The space between the arrows MUST be 50mm for the template to be accurate.

To print the templates, select 'Print.' Under 'Page Scaling' select 'None,' then choose 'Print Current Page' and click OK.





RC Hill Mitsubishi, Deland, FL

A dealer who increased his service business using the Computerized Vehicle Inspection Report.



(L-R): Kristian Mazzoni (Service Manager), Kenny Brown (Parts Manager), Wayne Keller (Parts Director), Mike Gray (Service Advisor), Trevor Jones, (Parts Warehouse), Freddie Jesse (Lead Technician), Barbara Jones (Service Coordinator), Shannon Alderson (Foreman), Phil Raymond Technician, Nick Finocchio (Technician)

The service department at R.C. Hill Mitsubishi in Deland, FL were faithful users of MMNA's paper 27 point inspection. It was used on most vehicles, and there was success with selling additional maintenance and repairs. All in all, the 27 point inspection was pretty good for them. Then, 2 years ago, MMNA introduced the Computerized Vehicle Inspection Report (CVIR), and things got even better. Service Manager Kristian Mazzoni got the process rolling by introducing CVIR to lead technician Freddie Jesse, who in the past excelled at using the 27 point inspection. After that, it wasn't long before the rest of the technical staff got on board when they saw how much more work Freddie was getting. Now, every repair order written has a CVIR completed and presented to the customer either in person, via email, or in some cases both. Mazzoni says it gives the customer everything they need to know about the condition of their vehicle in a clear, understandable and professional format. Overall, R.C. Hill gets 30% additional service business, some the same day and the rest shortly afterward. In December, R.C. Hill's staff completed 181 CVIRs, and have been steadily increasing since August, when they completed 148.

At R.C. Hill, it's the technicians who drive the process. They review the repair order and complete a CVIR as soon as the car is dispatched. Once completed by the tech, the CVIR is emailed to the customer. In some cases, if the customer is a "waiter," they are already reviewing the CVIR on their smartphone or tablet when the service adviser walks up to them with a printed copy to go over the results. The vehicle is already in the shop, which increases the chance the customer will agree to having the suggested items repaired right away. This reinforces the benefits of providing the CVIR results to the customer before original work is completed. Plus, if the vehicle can't be left for the additional work, the customer has a great reminder that work still needs to be done. Waiting until the vehicle is complete and the customer is ready to leave can mean a lost opportunity. Those with the time often authorize and have the additional repairs performed while they are there. It can be inconvenient for the customer to return at a later date.

According to Mazzoni, CVIR has not only generated additional business, "it has led to customers being more aware of their service needs. And they love the report's professional, complete and easy to understand appearance." He says CVIR has made it easier to sell future service as well as additional service and it is used as a forward selling tool. For example, if a vehicle is in for a service at 27,000 miles, Mazzoni's staff take the opportunity to use the CVIR to explain the upcoming major 30,000 mile service to the customer. By giving them a printed document with all of the details, right down to the estimate, there are no surprises when the customer returns the next time. Completing a CVIR for each repair order also helps keep the customer's contact information current, allowing R.C. Hill to make the most of their marketing efforts.

CVIR is a proven tool for maximizing a dealer's service business. It makes selling service and repairs easier for the service staff by providing customers what they need to make informed decisions. Inspection items are categorized, showing the customer what is most urgently needed, and what can wait for a future visit. Kristian Mazzoni and the service staff at R.C. Hill make the most of the CVIR, not just for their own good, for the customer's as well.

## Technical Training Schedule February — March, 2014

Always check the MDL for schedule updates. Mobile Training does not appear on these calendars. Contact your District Parts & Service Manager for information about mobile training in your area.

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## East Zone - N.J. Tech Training Center East Zone - Atlanta Tech Training Center

	Fe	brua	ary		March					February				March					
м	т	w	Th	F	м	т	w	Th	F	м	т	w	Th	F	M	т	w	Th	F
3	4	5	6	7	3	4	5	6	7	3	4	5	6	7	3	4	5	6	7
	141	ASCF	AB	S2		141		AED			141	SP3	AB	S2			MF	1T2	
10	11	12	13	14	10	11	12	13	14	10	11	12	13	14	10	11	12	13	14
						SP3		EN1			CV	ЛТТ	ME	VTT					
17	18	19	20	21	17	18	19	20	21	17	18	19	20	21	17	18	19	20	21
н		MA	СТ	AACT1			AT2T		AT3	н		MA	ст	AACT1		141		EN1	
24	25	26 TT	27	28 SST	24	25	26	27	28	24	25	26	27	28	24	25	26	27	28
					31										31				

#### West Zone-Dallas Tech Training Center

Training News

#### **California Technical Training Center**

	Fe	brua	ary		March					February					March				
M	т	w	Th	F	M	т	w	Th	F	м	т	w	Th	F	M	т	w	Th	F
3	4	5	6	7	3	4 AT2T	5	6 AT3	7	3	4 141	5 E	6 53	7	3	4	5	6	7
10	11	12	13	14	10	11	12	13	14	10	11	12	13	14	10	11	12	13	14
	MFI					ES3										N	IFI		
17	18	19	20	21	17	18	19	20	21	17	18	19	20	21	17	18	19	20	21
н		MTT STV MED2			ES2		н												
24 TC-S MED2	25 SST STV	26 141 ME	27 ASCF VTT	28	24	25 141 ME	26 ASCF VTT	27	28 SST	24	25	26	27	28	24	25	26	27	28
					31										31				

	Days	Code	Prerequisites		Days	Code	Prerequisites			
Automatic Transaxles				Manual Transaxles						
40/50 Series Diagnosis & Repair		AT2T	ATFT1 or ATFWE or ATFB	Manual Transaxles & Transfer Cases	3	MTT	No Prerequisites			
50 Series 5-speed Diagnosis & Repair		AT3	AT2T	Twin Clutch Sportronic Shift Transmission	2	TC-SST	AESP, ES1, ES2, STV3,			
CVT Diagnosis &Repair		CVTT	ATFT1 or ATFWE or ATFB				MED2, MED3, ATFWE, MTT			
Brakes										
Antilock Brakes	2	ABS2	ES1	Vehicle Specific						
Electrical Systems				Eclipse Spyder Convertible Top (Top Stack)	1	SP3	No Prerequisites			
Electrical Systems 2		ES2	ES1	2014 Outlander Technology	1	141	ES1, MED2, MED3, STV3			
Electrical Systems 3	2	ES3	ES1	Mitsubishi Electric Vehicle Technician Training	2	MEVTT	AESP, ES1, ES2, STV3,			
Engine Performance							MED2, MED3, 120			
Advanced Emission Diagnosis	3	AED	ES1, STV3, MFIT2	]						
Engine Technology & Diagnosis	3	EN1	No Prerequisites	Vehicle Diagnostics						
Multiport Fuel Injection	4	MFIT2	ES1, STV3	Advanced Electronic Service Procedures	-	AESP	No Prerequisites			
Heating & A/C Systems				Advanced Safety Features	ASF	ES1, MED2, MED3, STV3				
Manual A/C Systems	2	MACT	No Prerequisites	MEDIC II	1	MED2	No Prerequisites			
Automatic A/C Systems	1	AACT1	ES1	Scan Tool Viewer (MUT-III)	1	STV3	No Prerequisites			

#### NEWS:

**Diamond Pro award status** is currently being calculated and reviewed. The process for Diamond Pro Technician awards is scheduled to be completed by mid-late February, with actual announcement being made shortly thereafter.

**Technical Repair Quiz #1 for 2014 (TQ0114)** has been posted on the Mitsubishiacademy.com website. Technical Repair Quizzes are designed to measure Service Technician and Shop Foreman knowledge of recently published technical information and repair techniques. Technicians must successfully complete all quizzes for 2014 to qualify for DiamondPro Certification. Printable copies of the quizzes are located in two places (Mitsubishi Dealer Link and the Mitsubishi Academy).



TECHLINE will be closed Monday, February 17, 2014 in observance of President's Day.

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Call the MEDIC Hotline for ALL MEDIC & Scan Tool hardware<br/>or software issues.Call TECHLINE for vehicle technical issues.As of 2/04/14: Total Hits - 6220Reflash Database - N13112MEDIC 3 Version - 3.2MEDIC 3 Update - 240MUT-III Version - 29.0Raider Scan Tool Version - 6.0



The following information was recently released:

Number	Title	Vehicles	Subject
SR-13-009REV	2008-13 Lancer Evolution Clutch Master Cylinder Safety Recall Campaign - REVISED	2008–13 Lancer Evolution	The revision removes the requirement that photos be submitted to the PRC prior to repairs.
TSB-14-00-001	Main Power Switch Operation Cautions Statement Added-SMR	2012-14 i-MiEV	Adds high voltage caution statements to several service groups in the service manual.
TSB-14-11-001	Rocker Cover and Camshaft Removal and Installation	2007-12 Outlander	Adds information regarding oil filler cap o-ring replacement.
TSB-14-33-001	Front Stabilizer Bar Removal & Installation-SMR	2012-14 i-MiEV	Revised removal and installa- tion instructions to show hold- ing the link stud while loosen- ing/tightening retaining nuts
TSB-14-37-001	Intermediate Steering Shaft Removal and Installation	2014 Outlander	Adds removal and installation instructions for intermediate steering shaft.
TSB-14-42B-001	Floor Under Cover Sealant Application Locations-SMR	2013–14 Outlander Sport	Adds location of addition undercoat sealant for vehicles with new design under cover.
TSB-14-54-001	Corrected Electrical Connector References-SMR	2012–14 Lancer Evolution	Corrects pin number references in the circuit diagrams
TSB-14-54-002	Traction Battery Energy Level Gauge Diagnosis - SMR	2012-14 i-MiEV	Adds diagnosis for energy gauge does not show "Fully Charged."
TSB-14-54-003	High Voltage Parts Caution Statement Added – SMR	2012-14 i-MiEV	Adds high voltage caution statements to several service groups in the service manual.



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The information contained in this bulletin is subject to change. For the latest version of this document, go to the Mitsubishi Dealer Link, MEDIC, or the Mitsubishi Service Information website (*www.mitsubishitechinfo.com*).