



Technical Service Bulletin

SUBJECT: DTC B1616 DIAGNOSIS ADDED - SERVICE MANUAL REVISION			No: TSB-19-52B-003
			DATE: February 2019
			MODEL: 2014-2015 Mirage
CIRCULATE TO:	☐ GENERAL MANAGER	☒ PARTS MANAGER	☒ TECHNICIAN
☒ SERVICE ADVISOR	☒ SERVICE MANAGER	☒ WARRANTY PROCESSOR	☐ SALES MANAGER

This Technical Service Bulletin supersedes TSB-15-52B-001, issued January 2015, to change DTC: B1616 from erase impossible to erasable for the 2014 Mirage. Changes are italicized and indicated by ◀.

PURPOSE

This TSB updates the Supplemental Restraint System (SRS) section of the affected Service Manuals to correct the description of DTC B1616 in the Check Chart for Diagnostic Trouble Codes.

AFFECTED VEHICLES

- 2014 - 2015 Mirage

AFFECTED SERVICE MANUAL

- 2014 - 2015 Mirage Service Manual, Group 52B - Supplemental Restraint System (SRS) -> SRS Air Bag Diagnosis -> Check Chart for Diagnostic Trouble Codes
- 2014 - 2015 Mirage Service Manual, Group 52B - Supplemental Restraint System (SRS) -> SRS Air Bag Diagnosis -> Diagnostic Trouble Code Procedures



Please make the indicated changes to the 2014 Mirage Service Manual Group 52B Supplemental Restraint System (SRS) -> SRS Air Bag Diagnosis -> Check Chart for Diagnostic Trouble Codes.

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SUPPLEMENTAL RESTRAINT SYSTEM (SRS) SRS AIR BAG DIAGNOSIS

Code No.	Diagnostic item	Reference page
B1606 ^{*2}	Seat belt pre-tensioner (driver's side) (squib) system (shorted to squib circuit power supply)	P.52B-152
B1607 ^{*4}	Seat belt pre-tensioner (driver's side) activating circuit short-circuited	P.52B-40
B1608 ^{*4}	Seat belt pre-tensioner (driver's side) activating circuit open-circuited	P.52B-40
B1609 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (short circuit between squib circuit terminals)	P.52B-155
B1610 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (open circuit of squib circuit)	P.52B-159
B1611 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit ground)	P.52B-162
B1612 ^{*4}	Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit power supply)	P.52B-166
B1613 ^{*4}	Seat belt pre-tensioner (passenger's side) (squib) activating circuit short-circuited	P.52B-40
B1614 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) activating circuit open-circuited	P.52B-40
B1631 ^{*2}	Driver's knee air bag module (squib) system (short circuit between squib circuit terminals)	P.52B-169
B1632 ^{*2}	Driver's knee air bag module (squib) system (open circuit between squib circuit terminals)	P.52B-173
B1633 ^{*2}	Driver's knee air bag module (squib) system (shorted to squib circuit ground)	P.52B-169
B1634 ^{*2}	Driver's knee air bag module (squib) system (shorted to squib circuit power supply)	P.52B-180
B1635 ^{*4}	Driver's knee air bag module (squib) activating circuit short-circuited	P.52B-40
B1636 ^{*4}	Driver's knee air bag module (squib) activating circuit open-circuited	P.52B-40
B1646	Coding data mismatch	P.52B-183
B1697 ^{*5}	SRS-ECU system (emergency call has been judged)	-
B1699 ^{*4}	SRS-ECU collective deployment	P.52B-183
U0154	Occupant classification-ECU CAN timeout	P.52B-183
U1100	Engine CAN timeout	P.52B-185
U1102	ASC/TCL/ABS timeout/Not equipped	P.52B-187
U1104	SAS timeout/Not equipped	P.52B-189
U1108	Combination meter CAN timeout	P.52B-190
U1109	ETACS CAN timeout	P.52B-192
U1190 ^{*3}	No receive fault detect signal	P.52B-193
U1195 ^{*3}	Coding not completed	P.52B-194
U1199	VIN code not programmed	P.52B-195
B1616 ^{*4}	SRS-ECU safing G-sensor (for front air bag electronic safing circuit failure)	P. 52B-40

<Added>

Please make the indicated changes to the 2015 Mirage Service Manual Group 52B Supplemental Restraint System (SRS) -> SRS Air Bag Diagnosis -> Check Chart for Diagnostic Trouble Codes.

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SUPPLEMENTAL RESTRAINT SYSTEM (SRS) SRS AIR BAG DIAGNOSIS

Code No.	Diagnostic item	Reference page
B1606 ^{*2}	Seat belt pre-tensioner (driver's side) (squib) system (shorted to squib circuit power supply)	P.52B-152
B1607 ^{*4}	Seat belt pre-tensioner (driver's side) activating circuit short-circuited	P.52B-40
B1608 ^{*4}	Seat belt pre-tensioner (driver's side) activating circuit open-circuited	P.52B-40
B1609 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (short circuit between squib circuit terminals)	P.52B-155
B1610 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (open circuit of squib circuit)	P.52B-159
B1611 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit ground)	P.52B-162
B1612 ^{*4}	Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit power supply)	P.52B-166
B1613 ^{*4}	Seat belt pre-tensioner (passenger's side) (squib) activating circuit short-circuited	P.52B-40
B1614 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) activating circuit open-circuited	P.52B-40
B1631 ^{*2}	Driver's knee air bag module (squib) system (short circuit between squib circuit terminals)	P.52B-169
B1632 ^{*2}	Driver's knee air bag module (squib) system (open circuit between squib circuit terminals)	P.52B-173
B1633 ^{*2}	Driver's knee air bag module (squib) system (shorted to squib circuit ground)	P.52B-169
B1634 ^{*2}	Driver's knee air bag module (squib) system (shorted to squib circuit power supply)	P.52B-180
B1635 ^{*4}	Driver's knee air bag module (squib) activating circuit short-circuited	P.52B-40
B1636 ^{*4}	Driver's knee air bag module (squib) activating circuit open-circuited	P.52B-40
B1646	Coding data mismatch	P.52B-183
B1697 ^{*5}	SRS-ECU system (emergency call has been judged)	-
B1699 ^{*4}	SRS-ECU collective deployment	P.52B-183
U0154	Occupant classification-ECU CAN timeout	P.52B-183
U1100	Engine CAN timeout	P.52B-185
U1102	ASC/TCL/ABS timeout/Not equipped	P.52B-187
U1104	SAS timeout/Not equipped	P.52B-189
U1108	Combination meter CAN timeout	P.52B-190
U1109	ETACS CAN timeout	P.52B-192
U1190 ^{*3}	No receive fault detect signal	P.52B-193
U1195 ^{*3}	Coding not completed	P.52B-194
U1199	VIN code not programmed	P.52B-195

B1616 ^{*4}	SRS-ECU safing G-sensor (for front air bag electronic safing circuit failure)	P. 52B-40
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<Added>

Please make the indicated changes to the 2014 - 2015 Mirage Service Manual Group 52B Supplemental Restraint System (SRS) -> SRS Air Bag Diagnosis -> Diagnostic Trouble Code Procedures.

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SUPPLEMENTAL RESTRAINT SYSTEM (SRS) SRS AIR BAG DIAGNOSIS

DTC B1404: Driver's air bag module (1st squib) activating circuit short-circuited
DTC B1405: Driver's air bag module (1st squib) activating circuit open-circuited
DTC B1414: Passenger's (front) air bag module (1st squib) activating circuit short-circuited
DTC B1415: Passenger's (front) air bag module (1st squib) activating circuit open-circuited
DTC B1424: Side-airbag module (RH) (squib) activating circuit short-circuited
DTC B1425: Side-airbag module (RH) (squib) activating circuit open-circuited
DTC B1434: Side-airbag module (LH) (squib) activating circuit short-circuited
DTC B1435: Side-airbag module (LH) (squib) activating circuit open-circuited
DTC B1444: Curtain air bag module (RH) (squib) activating circuit short-circuited
DTC B1445: Curtain air bag module (RH) (squib) activating circuit open-circuited
DTC B1454: Curtain air bag module (LH) (squib) activating circuit short-circuited
DTC B1455: Curtain air bag module (LH) (squib) activating circuit open-circuited
DTC B1466: Analogue G-sensor malfunction
DTC B1478: SRS-ECU backup capacitor circuit voltage too High
DTC B1479: SRS-ECU backup capacitor circuit voltage too Low
DTC B1484: Driver's air bag module (2nd squib ignition drive circuit) system detected short circuit
DTC B1485: Driver's air bag module (2nd squib ignition drive circuit) system detected open circuit
DTC B1494: Passenger's (front) air bag module (2nd squib ignition drive circuit) system detected short circuit
DTC B1495: Passenger's (front) air bag module (2nd squib ignition drive circuit) system detected open circuit
DTC B1496: SRS-ECU non-volatile memory (EEPROM)
DTC B1498: SRS-ECU abnormal condition in ROM or RAM
DTC B1557: SRS-ECU application specific integrated circuit
DTC B1607: Seat belt pre-tensioner (driver's side) activating circuit short-circuited
DTC B1608: Seat belt pre-tensioner (driver's side) activating circuit open-circuited
DTC B1613: Seat belt pre-tensioner (passenger's side) (squib) activating circuit short-circuited
DTC B1614: Seat belt pre-tensioner (passenger's side) (squib) activating circuit open-circuited
DTC B1635: Driver's knee air bag module (squib) activating circuit short-circuited
DTC B1636: Driver's knee air bag module (squib) activating circuit short-circuited

DTC B1616: SRS-ECU safing G-sensor (for front air bag electronic safing circuit failure)

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⚠ CAUTION

If diagnostic trouble code is stored in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTC are stored when a fault is detected in the SRS-ECU. The most likely causes for this code to be stored are shown in the table below:

TROUBLESHOOTING HINTS

Malfunction of the SRS-ECU

Code No.	Part/Circuit integral to SRS-ECU	Trouble causes
B1404	Driver's air bag module (1st squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1405		• Open circuit in the squib ignition drive circuit
B1414	Passenger's (front) air bag module (1st squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1415		• Open circuit in the squib ignition drive circuit
B1424	Side-airbag module (RH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1425		• Open circuit in the squib ignition drive circuit

**SUPPLEMENTAL RESTRAINT SYSTEM (SRS)
SRS AIR BAG DIAGNOSIS**

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Code No.	Part/Circuit integral to SRS-ECU	Trouble causes
B1434	Side-airbag module (LH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1435		• Open circuit in the squib ignition drive circuit
B1444	Curtain air bag module (RH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1445		• Open circuit in the squib ignition drive circuit
B1454	Curtain air bag module (LH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1455		• Open circuit in the squib ignition drive circuit
B1466	Analogue G-sensor (front air bag)	• When the analogue G-sensor is not operating • When the characteristics of the analogue G-sensor are abnormal • When the output from the analogue G-sensor is abnormal
B1478	Capacitor	• Voltage at the capacitor terminal is higher than the specified value for five seconds or more
B1479		• Voltage at the capacitor terminal is lower than the specified value for five seconds or more (This is not detected if diagnostic trouble code B1476 or B1477 indicating battery positive voltage drop has been stored).
B1484	Driver's air bag module (2nd squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1485		• Open circuit in the squib ignition drive circuit
B1494	Passenger's (front) air bag module (2nd squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1495		• Open circuit in the squib ignition drive circuit
B1496	Non-volatile memory (EEPROM)	• When EEPROM communication error occurs
B1498	ROM or RAM	• When the ROM or RAM are abnormal
B1557	Application specific integrated circuit	• When the application specific integrated circuit are abnormal
B1607	Seat belt pre-tensioner (driver side) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1608		• Open circuit in the squib ignition drive circuit
B1613	Seat belt pre-tensioner (passenger side) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1614		• Open circuit in the squib ignition drive circuit
B1635	Driver's knee air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1636		• Open circuit in the squib ignition drive circuit

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B1616	SRS-ECU safing G-sensor (for front air bag electronic)	Safing circuit failure
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