

SERVICE**TECHNICAL BULLETIN****Supplemental Restraint System (SRS) –
Flash Codes & PID Code Definitions –
Diagnostics**MODEL 2004 MY-ON
XJ range

VIN G00001-ON

Issue:

This bulletin provides information on Flash Codes and PID code descriptions to assist in the diagnosis of the SRS.

This document is to be used as a guide only. It supports the existing diagnostic equipment, circuit diagrams in the Electrical Guide, and workshop manual.

Action:FLASH CODES

Determine any Flash Code(s) that may be stored in the Restraint Control Module (RCM) by observing the SRS warning indicator displayed on the instrument cluster.

Note: Only one Flash Code will be displayed at a time, however there may be multiple fault codes stored, which can appear after one fault is repaired.

DTC & PID CODES

Retrieve any logged Diagnostic Trouble Codes (DTCs) from the Restraint Control Module (RCM) using the Worldwide Diagnostic System (WDS).

Note: The Parameter Identification (PID) code, which is displayed on the WDS screen in brackets next to the DTC, differs from the Flash Code. These two codes must not be confused as incorrect diagnosis may occur.

DIAGNOSIS

⚠ WARNING: ENSURE ALL SAFETY PROCEDURES ARE FOLLOWED BEFORE AND DURING ANY WORK THAT IS CARRIED OUT ON THE SRS.

Using the Index, retrieved Flash Code, retrieved DTCs and PID codes determine the correct fault description. Check the list of possible causes against that fault description

NOTE: THE INFORMATION IN TECHNICAL BULLETINS IS INTENDED FOR USE BY TRAINED, PROFESSIONAL TECHNICIANS WITH THE KNOWLEDGE, TOOLS, AND EQUIPMENT TO DO THE JOB PROPERLY AND SAFELY. IT INFORMS THESE TECHNICIANS OF CONDITIONS THAT MAY OCCUR ON SOME VEHICLES, OR PROVIDES INFORMATION THAT COULD ASSIST IN PROPER VEHICLE SERVICE. THE PROCEDURES SHOULD NOT BE PERFORMED BY "DO-IT-YOURSELFERS." DO NOT ASSUME THAT A CONDITION DESCRIBED AFFECTS YOUR CAR. CONTACT A JAGUAR RETAILER TO DETERMINE WHETHER THE BULLETIN APPLIES TO YOUR VEHICLE.

for poor connections, backed out/bent pins, visible damage, or trapped harness.

Note: If a fault is identified with the Occupancy Classification System (OCS) module, passenger seat weight sensor or passenger seat weight sensor harness, all of these components must be replaced as a complete kit.

Note: If the RCM has been identified as being faulty and requires replacement, any additional faults within the SRS system **MUST** be repaired and DTCs cleared **BEFORE** replacing the RCM.

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12											X
13											X
14										X	
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16	X						X				X
17	X							X			X
18										X	
19	X	X									
21	X	X									
22	X		X								
23	X		X								
24	X			X							
25	X			X							
33	X				X						
34	X				X						
35	X				X						
36	X				X						
37	X				X						
42	X					X					X
43	X					X					X
44	X					X					X
45	X					X					X
46	X					X					X
49	X								X		
51	X								X		
52	X								X		
53										X	
ON	X									X	
OFF										X	

Combination Faults

Flash Code	DTC (PID code)	Fault Description	Possible Causes
16 52	B2290 (26) B2290 (27) B2692	Occupancy Classification System (OCS) Fault	Connector: SP028
19	B2293 (29) B2293 (21)	Driver Air Bag Front - Stage 1 Open Circuit Driver Air Bag Front - Stage 2 Open Circuit	Connector: IP076, SW008
21	B2293 (25) B2293 (17)	Passenger Air Bag Front - Stage 1 Open Circuit Passenger Air Bag Front - Stage 2 Open Circuit	Connector: IP077
33 22	B2292 (31) B2295 (29)	Driver Pretensioner Squib Front - Low Resistance Driver Air Bag Side – Open Circuit	Connector: SD016
34 23	B2292 (26) B2295 (25)	Passenger Pretensioner Circuit Front - Open Circuit Passenger Air Bag Side – Open Circuit	Connector: SP016
46 49 51 52 42 45 44 43 23 22 25 24 36 37 35 34 33	B2296 (25) C1981 B2691 B2692 B2296 (19) (27) (29) (31) B2295 (25) (29) B2294 (25) (29) B2292 (15) (18) (22) (26) (30)	Passenger Side Impact Sensor Rear - Mount/Communication Fault Driver Seat Position Switch Circuit Fault Driver Safety Belt Buckle Switch Front - Circuit Fault Passenger Safety Belt Buckle Switch Front - Circuit Fault Front Impact Sensor - Mount/Communication Fault Driver Side Impact Sensor Rear - Mount/Communication Fault Passenger Side Impact Sensor Front - Mount/Communication Fault Driver Side Impact Sensor Front - Mount/Communication Fault Passenger Air Bag Side – Open Circuit Driver Air Bag Side – Open Circuit Passenger Side Air Curtain – Open Circuit Driver Side Air Curtain – Open Circuit Center Pretensioner Circuit Rear – Open Circuit Passenger Pretensioner Circuit Rear – Open Circuit Driver Pretensioner Circuit Rear – Open Circuit Passenger Pretensioner Circuit Front – Open Circuit Driver Pretensioner Circuit Front – Open Circuit	Connector: CR087
ON		Restraint Control Module (PAD Lamp On Permanently, No Diagnostic Communications)	Connector: CR086
17	B2291 (28) (29)	Occupant Position System (OPS) Calibration Fault Occupant Position System (OPS) Communication Fault	Clear DTCs and Cycle Ignition
16 17	B2290 B2291	Occupancy Classification System (OCS) Fault Occupant Position System (OPS) Fault	Local CAN open/short

Front Air Bags

Flash Code	DTC (PID code)	Fault Description	Possible Causes
19	B2293 (20)	Driver Air Bag Front - Stage 2 Squib Low Resistance	Connector: SW008, SW012 Clockspring Connector: IP076, CR086 Driver Air Bag Front Harness: Instrument Panel, Cabin
19	B2293 (21)	Driver Air Bag Front - Stage 2 Open Circuit	Connector: SW008, SW012 Clockspring Connector: IP076, CR086 Driver Air Bag Front Harness: Instrument Panel, Cabin
19	B2293 (22)	Driver Air Bag Front - Stage 2 Short Circuit to Battery	Clockspring Connector: SW008, SW012, IP076, CR086 Harness: Instrument Panel, Cabin
19	B2293 (23)	Driver Air Bag Front - Stage 2 Short Circuit to Ground	Harness: Instrument Panel, Cabin Clockspring Connector: IP076, CR086 Driver Air Bag Front
19	B2293 (28)	Driver Air Bag Front - Stage 1 Squib Low Resistance	Connector: SW008, SW011 Clockspring Connector: IP076, CR086 Driver Air Bag Front Harness: Instrument Panel, Cabin
19	B2293 (29)	Driver Air Bag Front - Stage 1 Open Circuit	Connector: SW008, SW011 Clockspring Connector: IP076, CR086 Driver Air Bag Front Harness: Instrument Panel, Cabin
19	B2293 (30)	Driver Air Bag Front - Stage 1 Short to Battery	Clock Spring Connector: SW008, SW011, IP076, CR086 Harness: Instrument Panel, Cabin
19	B2293 (31)	Driver Air Bag Front - Stage 1 Short to Ground	Harness: Instrument Panel, Cabin Clockspring Connector: IP076, CR086 Driver Air Bag Front

Front Air Bags – Continued

Flash Code	DTC (PID code)	Fault Description	Possible Causes
21	B2293 (24)	Passenger Air Bag Front - Stage 1 Squib Low Resistance	Connector: IP056, IP077, CR086 Passenger Air Bag Front Harness: Instrument Panel, Cabin
21	B2293 (25)	Passenger Air Bag Front - Stage 1 Open Circuit	Connector: IP056, IP077, CR086 Passenger Air Bag Front Harness: Instrument Panel, Cabin
21	B2293 (26)	Passenger Air Bag Front - Stage 1 Short to Battery	Connector: IP056, IP077, CR086 Harness: Instrument Panel, Cabin
21	B2293 (27)	Passenger Air Bag Front – Stage 1 Short to Ground	Harness: Instrument Panel, Cabin Connector: IP056, IP077, CR086 Passenger Air Bag Front
21	B2293 (16)	Passenger Air Bag Front - Stage 2 Squib Low Resistance	Connector: IP015, IP077, CR086 Passenger Air Bag Front Harness: Instrument Panel, Cabin
21	B2293 (17)	Passenger Air Bag Front - Stage 2 Open Circuit	Connector: IP015, IP077, CR086 Passenger Air Bag Front Harness: Instrument Panel, Cabin
21	B2293 (18)	Passenger Air Bag Front - Stage 2 Short to Battery	Connector: IP015, IP077, CR086 Harness: Instrument Panel, Cabin
21	B2293 (19)	Passenger Air Bag Front - Stage 2 Short to Ground	Harness: Instrument Panel, Cabin Connector: IP015, IP077, CR086 Passenger Air Bag Front

Side Air Bags

Flash Code	DTC (PID code)	Fault Description	Possible Causes
22	B2295 (28)	Driver Air Bag Squib Side – Low Resistance	Connector: SD016, SD017, CR087 Driver Air Bag Side Harness: Seat, Cabin
22	B2295 (29)	Driver Air Bag Side – Open Circuit	Connector: SD016, SD017, CR087 Driver Air Bag Side Harness: Seat, Cabin
22	B2295 (30)	Driver Air Bag Side - Short to Ground	Harness: Seat, Cabin Connector: SD016, SD017, CR087 Driver Air Bag Side
22	B2295 (31)	Driver Air Bag Side - Short to Battery	Connector: SD016, SD017, CR087 Harness: Seat, Cabin
23	B2295 (24)	Passenger Air Bag Squib Side – Low Resistance	Connector: SP016, SP017, CR087 Passenger Air Bag Side Harness: Seat, Cabin
23	B2295 (25)	Passenger Air Bag Side - Open Circuit	Connector: SP016, SP017, CR087 Passenger Air Bag Side Harness: Seat, Cabin
23	B2295 (26)	Passenger Air Bag Side - Short to Ground	Harness: Seat, Cabin Connector: SP016, SP017, CR087 Passenger Air Bag Side
23	B2295 (27)	Passenger Air Bag Side - Short to Battery	Connector: SP016, SP017, CR087 Harness: Seat, Cabin

Side Air Curtain

Flash Code	DTC (PID code)	Fault Description	Possible Causes
24	B2294 (28)	Driver Side Air Curtain Squib - Low Resistance	Connector: CR062, CR087 Driver Side Air Curtain Harness: Cabin
24	B2294 (29)	Driver Side Air Curtain - Open Circuit	Connector: CR062, CR087 Driver Side Air Curtain Harness: Cabin
24	B2294 (30)	Driver Side Air Curtain - Short to Ground	Harness: Cabin Connector: CR062, CR087 Driver Side Air Curtain
24	B2294 (31)	Driver Side Air Curtain - Short to Battery	Connector: CR062, CR087 Harness: Cabin
25	B2294 (24)	Passenger Side Air Curtain Squib - Low Resistance	Connector: CR033, CR087 Passenger Side Air Curtain Harness: Cabin
25	B2294 (25)	Passenger Side Air Curtain – Open Circuit	Connector: CR033, CR087 Passenger Side Air Curtain Harness: Cabin
25	B2294 (26)	Passenger Side Air Curtain - Short to Ground	Harness: Cabin Connector: CR033, CR087 Passenger Side Air Curtain
25	B2294 (27)	Passenger Side Air Curtain - Short to Battery	Connector: CR033, CR087 Harness: Cabin

Safety Belt Pretensioners

Flash Code	DTC (PID code)	Fault Description	Possible Causes
33	B2292 (28)	Driver Pretensioner Front - Short to Ground	Harness: Seat, Cabin Connector: SD019, SD016, CR087 Driver Pretensioner Front
33	B2292 (29)	Driver Pretensioner Front - Short to Battery	Connector: SD019, SD016, CR087 Harness: Seat, Cabin
33	B2292 (30)	Driver Pretensioner Front - Open Circuit	Connector: SD019, SD016, CR087 Driver Pretensioner Front Harness: Seat, Cabin
33	B2292 (31)	Driver Pretensioner Squib Front - Low Resistance	Connector: SD019, SD016, CR087 Driver Pretensioner Front Harness: Seat, Cabin
34	B2292 (24)	Passenger Pretensioner Front - Short to Ground	Harness: Seat, Cabin Connector, SP019, SP016, CR087 Passenger Pretensioner Front
34	B2292 (25)	Passenger Pretensioner Front - Short to Battery	Connector: SP019, SP016, CR087 Harness: Seat, Cabin
34	B2292 (26)	Passenger Pretensioner Front - Open Circuit	Connector: SP019, SP016, CR087 Passenger Pretensioner Front Harness: Seat, Cabin
34	B2292 (27)	Passenger Pretensioner Squib Front - Low Resistance	Connector: SP019, SP016, CR087 Passenger Pretensioner Front Harness: Seat, Cabin
35	B2292 (20)	Driver Pretensioner Rear - Short to Ground	Harness: Cabin Connector: CR064, CR087 Driver Pretensioner Rear
35	B2292 (21)	Driver Pretensioner Rear - Short to Battery	Connector: CR064, CR087 Harness: Cabin
35	B2292 (22)	Driver Pretensioner Rear - Open Circuit	Connector: CR064, CR087 Driver Pretensioner Rear Harness: Cabin
35	B2292 (23)	Driver Pretensioner Squib Rear - Low Resistance	Connector: CR064, CR087 Driver Pretensioner Rear Harness: Cabin
36	B2292 (12)	Center Pretensioner Squib Rear - Low Resistance	Connector: CR065, CR087 Center Pretensioner Rear Harness: Cabin
36	B2292 (13)	Center Pretensioner Rear - Short to Ground	Harness: Cabin Connector: CR065, CR087 Center Pretensioner Rear

Safety Belt Pretensioners – Continued.

Flash Code	DTC (PID code)	Fault Description	Possible Causes
36	B2292 (14)	Center Pretensioner Rear - Short to Battery	Connector: CR065, CR087 Harness: Cabin
36	B2292 (15)	Center Pretensioner Rear - Open Circuit	Connector: CR065, CR087 Center Pretensioner Rear Harness: Cabin
37	B2292 (16)	Passenger Pretensioner Rear - Short to Ground	Harness: Cabin Connector: CR066, CR087 Passenger Pretensioner Rear
37	B2292 (17)	Passenger Pretensioner Rear - Short to Battery	Connector: CR066, CR087 Harness: Cabin
37	B2292 (18)	Passenger Pretensioner Rear - Open Circuit	Connector: CR066, CR087 Passenger Pretensioner Rear Harness: Cabin
37	B2292 (19)	Passenger Pretensioner Squib Rear - Low Resistance	Connector: CR066, CR087 Passenger Pretensioner Rear Harness Cabin

Impact Sensors

Flash Code	DTC (PID code)	Fault Description	Possible Causes
42	B2296 (19)	Front Impact Sensor Mount/Communication Fault	Connector: EC050, EC046, CR087 Harness: Engine, Cabin Impact sensor mount fixing loose Front Impact Sensor
43	B2296 (31)	Driver Side Impact Sensor Front - Mount/Communication Fault	Connector: CR060, CR087 Harness: Cabin Impact sensor mount fixing loose Driver Side Impact Sensor Front
44	B2296 (29)	Passenger Side Impact Sensor Front - Mount/Communication Fault	Connector: CR035, CR087 Harness: Cabin Impact sensor mount fixing loose Passenger Side Impact Sensor Front
45	B2296 (27)	Driver Side Impact Sensor Rear - Mount/Communication Fault	Connector: CR061, CR087 Harness: Cabin Impact sensor mount fixing loose Driver Side Impact Sensor Rear
46	B2296 (25)	Passenger Side Impact Sensor Rear - Mount/Communication Fault	Connector: CR051, CR087 Harness: Cabin Impact sensor mount fixing loose Passenger Side Impact Sensor Rear

Occupant Classification System (OCS)

Flash Code	DTC (PID code)	Fault Description	Possible Causes
16	B2290 (24)	Passenger OCS Sensing Element Fault Front	Passenger seat weight pressure sensor Harness: Passenger seat weight pressure sensor Connector: SP003, SP002
16	B2290 (26)	OCS Communication Fault	Connector: SP002, SP030, SP028, CR087 Harness: Seat, Cabin
16	B2290 (27)	OCS Module Fault	Connector: SP002, SP030, SP028, CR087 Harness: Seat, Cabin
16	B2909 (29)	Passenger Safety Belt Tension Sensor Front – Short to Ground	Connector: SP033, SP002 Harness: Seat Passenger Safety Belt Tension Sensor Front
16	B2909 (31)	Passenger Safety Belt Tension Sensor Front – Circuit Fault	Passenger Safety Belt Tension Sensor Front Connector: SP033, SP002 Harness: Seat

Occupant Position System (OPS)

Flash Code	DTC (PID code)	Fault Description	Possible Causes
17	B2291 (24)	Passenger OPS Sensor 4 Center (outer headliner/B pillar) – Sensor Fault	Connector: RF018, RF002, SP028, SP030 Passenger OPS Sensor 4 Center Harness: Roof, Seat
17	B2291 (25)	Passenger OPS Sensor 3 Front (A pillar) – Sensor Fault	Connector: CR105, SP028, SP030, Passenger OPS Sensor 3 Front Harness: Cabin, Seat
17	B2291 (26)	Passenger OPS Sensor 2 Front (instrument panel console) – Sensor Fault	Connector: CL006/007, CL003, CC002, TL093, SP028, SP030 Passenger OPS Sensor 2 Front Harness: Instrument Panel Console Link, Instrument Console, Telematics, Seat
17	B2291 (27)	Passenger OPS Sensor 1 Center (center headliner) – Sensor Fault	Connector: RF016, RF002, SP028, SP030 Passenger OPS Sensor 1 Center Harness: Roof, Seat
17	B2291 (28)	Passenger OPS Calibration Fault	Clear Fault Code and Cycle Ignition
17	B2291 (29)	Passenger OPS Communications Fault	Clear Fault Code and Cycle Ignition

Front Safety Belt Buckle and Seat Track Position Switches

Flash Code	DTC (PID code)	Fault Description	Possible Causes
49	C1981	Driver Seat Track Position Switch Front - Circuit Fault	Connector: SD020, SD028, CR087 Driver Seat Track Position Switch Harness: Seat, Cabin
49	C1947	Seat Track Position Switch Circuit Short to Ground - Driver Front	Harness Seat Harness Cabin SD020 SD028 CR087 Seat Track Position Switch Driver
49	C1948	Driver Seat Track Position Switch Front - Circuit Resistance out of Range	Driver Seat Track Position Switch Connector: SD020, SD028, CR087
51	B2691	Driver Safety Belt Buckle Switch Front - Circuit Fault	Connector: SD019, SD028, CR087 Driver Safety Belt Buckle Switch Harness: Seat, Cabin
51	B2434	Driver Safety Belt Buckle Switch Front - Short to Ground	Harness: Seat, Cabin Connector: SD019, SD028, CR087 Driver Safety Belt Buckle Switch
51	B2435	Driver Safety Belt Buckle Switch Front - Circuit Resistance out of Range	Driver Safety Belt Buckle Switch Connector: SD019, SD028, CR087
52	B2438	Passenger Safety Belt Buckle Switch Front - Short to Ground	Harness: Seat, Cabin Connector: SP019, SP028, CR087 Passenger Safety Belt Buckle Switch
52	B2692	Passenger Safety Belt Buckle Switch Front - Circuit Fault	Connector: SP019, SP028, CR087 Passenger Safety Belt Buckle Switch Harness: Seat, Cabin
52	B2439	Passenger Safety Belt Buckle Switch Front - Circuit Resistance out of Range	Passenger Safety Belt Buckle Switch Connector: SP019, SP028, CR087

Miscellaneous

Flash Code	DTC (PID code)	Fault Description	Possible Causes
14	B1921	Restraint Control Module – Open Circuit or High Resistance on Bracket Ground	Restraint Control Module Fixings Loose Restraint Control Module
18	B1884	Passenger Air Bag Deactivation (PAD) Warning Indicator – Open Circuit (PAD warning indicator OFF)	Connector: IP068, IP058, IP003, CR086 PAD Lamp Harness: Cabin, Instrument Panel
18	B1884	PAD Warning Indicator – Short to Ground (PAD warning indicator ON)	Harness: Cabin, Instrument Panel Connector: IP068, IP003, CR086
18	B1890	PAD Warning Indicator - Short To Battery (PAD warning indicator OFF)	Connector: IP068, IP003, CR086 Harness: Cabin, Instrument Panel
53	B1891	Air Bag Audible Warning - Short to Battery	Harness: Cabin, Instrument Panel Connector: IP005, IP017, CR086
53	B1892	Air Bag Audible Warning – Short to Ground or Open Circuit	Connector: IP005, IP017, CR086 Harness: Cabin, Instrument Panel
ON	B1317	Battery Voltage High	Charging system
ON	B1318	Battery Voltage Low	Charging system
ON	B1870	Air Bag Warning Indicator - Short To Battery	Connector: IP005, IP017, CR086 Harness: Instrument Panel, Cabin
ON	B1869	Air Bag Warning Indicator - Open Circuit	Connector: IP005, IP017, CR086 Harness: Instrument Panel, Cabin
OFF	B1869	Air Bag Warning Indicator – Short to Ground	Harness: Instrument Panel, Cabin Connector: IP005, IP017, CR086
ON		Feed to Restraint Control Module Open Circuit/Short to Ground (unable to communicate with module)	Fuse 29 (10 A) blown or missing - Passenger Junction Fuse Box
12	B1342	Restraint Control Module – Internal Failure	Restraint Control Module – Fixing Loose Battery Voltage out of Range Ground Points: G07AL, G07AR, G07BS, G07AS Restraint Control Module

Component Replacement

Flash Code	DTC (PID code)	Fault Description	Part to be replaced
13	B1231	Crash Data Memory Full	If DTC can be cleared no further action is required. If DTC can't be cleared replace the RCM
15	C1414	RCM Version Conflicts with OCS	Restraint Control Module or OCS Service Kit
16	B2290 (25)	OCS Calibration Fault	OCS Service Kit
16	B2290 (27)	Generic OCS Module Fault	OCS Service Kit
17	B2291 (30)	Generic OCS Module Fault	OCS Service Kit
42	B2296 (18)	Front Impact Sensor - Internal Fault	Front Impact Sensor
43	B2296 (30)	Driver Side Impact Sensor Front - Internal Fault	Driver Side Impact Sensor Front
44	B2296 (28)	Passenger Side Impact Sensor Front - Internal Fault	Passenger Side Impact Sensor Front
45	B2296 (26)	Driver Side Impact Sensor Rear - Internal Fault	Driver Side Impact Sensor Rear
46	B2296 (24)	Passenger Side Impact Sensor Rear - Internal Fault	Passenger Side Impact Sensor Rear

Parts Information

Not applicable

Warranty Information

Not applicable