

Supplemental Restraint System (SRS) – Flash Codes & PID Code Definitions – Diagnostics

MODEL 2002 MY-ON
X-TYPE

VIN C00001-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 DEALER 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.

Flash Code	Combination Faults	Front Air Bags	Side Air Bags	Side Air Curtains	Safety Belt Pretensioners	Impact Sensors	Occupant Classification System (OCS)	Front Safety Belt Buckle and Seat Track Position Switches	Miscellaneous	Component Replacement
page	4	7	9	11	12	14	15	16	18	20
12									x	x
13										x
14									x	
15										x
16	x						x			x
18									x	
19	x	x								
21	x	x								
22	x		x							
23	x		x							
24	x			x						
25	x			x						
28	x	x								
33	x				x					
34	x				x					
38	x				x					
39	x				x					
42	x					x				x
43	x					x				x
44	x					x				x
45	x					x				x
46	x					x				x
48	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
21	B2293 (25)	Passenger Air Bag Front - Stage 1 Open Circuit	Connector: IP036
	B2293 (17)	Passenger Air Bag Front - Stage 2 Open Circuit	Connector: IP037

Flash Code	DTC (PID code)	Fault Description	Possible Causes
33	B2292 (30)	Driver Pretensioner Squib Front - Open Circuit	Connector: CA065
51	B2691	Driver Safety Belt Buckle Switch Front - Circuit Fault	
49	C1981	Driver Seat Position Switch - Circuit Fault	Connector: CA065
22	B2295 (29)	Driver Air Bag Side - Open Circuit	
Flash Code	DTC (PID code)	Fault Description	Possible Causes
34	B2292 (26)	Passenger Pretensioner Circuit Front - Open Circuit	Connector: CA070
23	B2295 (25)	Passenger Air Bag Side - Open Circuit	
52	B2692	Passenger Safety Belt Buckle Switch Front - Circuit Fault	
16	B2290 (26)	Local CAN Open/ Short Battery Positive/ Ground	
48	C2200	Passenger Front Seat Track Position Switch Front - Open Circuit/Short to battery	

Flash Code	DTC (PID code)	Fault Description	Possible Causes
46	B2296 (25)	Passenger Side Impact Sensor Rear - Mount/Communication Fault	Connector: FWD CA165 - RWD CA450
49	C1981	Driver Seat Position Switch Circuit Fault	
51	B2691	Driver Safety Belt Buckle Switch Front - Circuit Fault	
52	B2692	Passenger Safety Belt Buckle Switch Front - Circuit Fault	
42	B2296 (19)	Front Impact Sensor - Mount/Communication Fault	
45	B2296 (27)	Driver Side Impact Sensor Rear - Mount/ Communication Fault	
44	B2296 (29)	Passenger Side Impact Sensor Front - Mount/Communication Fault	
43	B2296 (31)	Driver Side Impact Sensor Front - Mount/Communication Fault	
23	B2295 (25)	Passenger Air Bag Side - Open Circuit	
22	B2295 (29)	Driver Air Bag Side - Open Circuit	
25	B2294 (25)	Passenger Side Air Curtain - Open Circuit	
24	B2294 (29)	Driver Side Air Curtain - Open Circuit	
48	C2200	Passenger Front Seat Track Position Switch Front - Open Circuit/Short to battery	

Flash Code	DTC (PID code)	Fault Description	Possible Causes
16	B2290 (26) B2290 (27)	Occupancy Classification System (OCS) Fault	
28	B2988	Driver Inflatable Knee Bolster Open circuit - All Wheel Drive Only	
38	B2292 (06)	Driver Reel Pretensioner Front - Open Circuit - NA ONLY	
38	B2292 (02)	Passenger Reel Pretensioner Front - Open Circuit - NA ONLY	
34	B2292 (26)	Passenger Pretensioner Circuit Front - Open Circuit	
33	B2292 (30)	Driver Pretensioner Circuit Front - Open Circuit	

Flash Code	DTC (PID code)	Fault Description	Possible Causes
ON		Restraint Control Module (PAD Lamp ON Permanently, No Diagnostic Communications	Connector: IP074

Flash Code	DTC (PID code)	Fault Description	Possible Causes
16	B2290 (26)	Local CAN Open/ Short Battery Positive/ Ground	Connector: SP002, SP030, SP028, CR087. Harness: Seat, Cabin

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: SW001, Clockspring. Connector: IP034, IP074. Driver Air Bag Front. Harness: Instrument Panel
19	B2293 (21)	Driver Air Bag Front - Stage 2 Open Circuit	Connector: SW001, Clockspring. Connector: IP034, IP074. Driver Air Bag Front. Harness: Instrument Panel
19	B2293 (22)	Driver Air Bag Front - Stage 2 Short Circuit to Battery	Clockspring. Connector: SW001, IP034, IP074. Harness: Instrument Panel
19	B2293 (23)	Driver Air Bag Front - Stage 2 Short Circuit to Ground	Harness: Instrument Panel. Clockspring. Connector: IP034, IP074. Driver Air Bag Front
19	B2293 (28)	Driver Air Bag Front - Stage 1 Squib Low Resistance	Connector: SW002, Clockspring. Connector: IP034, IP074. Driver Air Bag Front. Harness: Instrument Panel
19	B2293 (29)	Driver Air Bag Front - Stage 1 Open Circuit	Connector: SW002, Clockspring. Connector: IP034, IP074. Driver Air Bag Front. Harness: Instrument Panel
19	B2293 (30)	Driver Air Bag Front - Stage 1 Short to Battery	Clockspring. Connector: SW002, IP034, IP074. Harness: Instrument Panel

FRONT AIR BAGS (CONTINUED)

Flash Code	DTC (PID code)	Fault Description	Possible Causes
19	B2293 (31)	Driver Air Bag Front - Stage 1 Short to Ground	Harness: Instrument Panel. Clockspring. Connector: IP034, IP074. Driver Air Bag Front
21	B2293 (24)	Passenger Air Bag Front - Stage 1 Squib Low Resistance	Connector: IP036, IP074. Passenger Air Bag Front. Harness: Instrument Panel
21	B2293 (25)	Passenger Air Bag Front - Stage 1 Open Circuit	Connector: IP036, IP074. Passenger Air Bag Front. Harness: Instrument Panel
21	B2293 (26)	Passenger Air Bag Front - Stage 1 Short to Battery	Connector: IP036, IP074. Harness: Instrument Panel
21	B2293 (27)	Passenger Air Bag Front - Stage 1 Short to Ground	Harness: Instrument Panel. Connector: IP036, IP074. Passenger Air Bag Front
21	B2293 (16)	Passenger Air Bag Front - Stage 2 Squib Low Resistance	Connector: IP037, IP074. Passenger Air Bag Front. Harness: Instrument Panel
21	B2293 (17)	Passenger Air Bag Front - Stage 2 Open Circuit	Connector: IP037, IP074. Passenger Air Bag Front. Harness: Instrument Panel
21	B2293 (18)	Passenger Air Bag Front - Stage 2 Short to Battery	Connector: IP037, IP074. Harness: Instrument Panel
21	B2293 (19)	Passenger Air Bag Front - Stage 2 Short to Ground	Harness: Instrument Panel. Connector: IP037, IP074. Passenger Air Bag Front

FRONT AIR BAGS (CONTINUED)

Flash Code	DTC (PID code)	Fault Description	Possible Causes
28	B2988	Driver Inflatable Knee Bolster Open circuit	Connector: CA450, CA420. Driver Knee Bolster. Cabin Harness
28	B2989	Driver Inflatable Knee Bolster Short battery	Connector: CA450, CA420. Cabin Harness
28	B2990	Drivers Inflatable Knee Bolster Short to ground	Cabin Harness. Connector: CA450, CA420. Driver Knee Bolster
28	B2991	Drivers Inflatable Knee Bolster Resistance low	Cabin Harness. Connector: CA450, CA420. Driver Knee Bolster

SIDE AIR BAGS

Flash Code	DTC (PID code)	Fault Description	Possible Causes
22	B2295 (28)	Driver Air Bag Squib Side - Low Resistance	Connector: AL001, CA065, CA450. Driver Air Bag Side. Harness: Seat, Cabin
22	B2295 (29)	Driver Air Bag Side - Open Circuit	Connector: AL001, CA065, CA450. Driver Air Bag Side. Harness: Seat, Cabin
22	B2295 (30)	Driver Air Bag Side - Short to Ground	Harness: Seat, Cabin. Connector: AL001, CA065, CA450. Driver Air Bag Side
22	B2295 (31)	Driver Air Bag Side - Short to Battery	Connector: AL001, CA065, CA450. Harness: Seat, Cabin

SIDE AIR BAGS (CONTINUED)

Flash Code	DTC (PID code)	Fault Description	Possible Causes
23	B2295 (24)	Passenger Air Bag Squib Side - Low Resistance	Connector: AD001, CA070, CA450. Passenger Air Bag Side. Harness: Seat, Cabin
23	B2295 (25)	Passenger Air Bag Side - Open Circuit	Connector: AD001, CA070, CA450. Passenger Air Bag Side. Harness: Seat, Cabin
23	B2295 (26)	Passenger Air Bag Side - Short to Ground	Harness: Seat, Cabin. Connector: AD001, CA070, CA450. Passenger Air Bag Side
23	B2295 (27)	Passenger Air Bag Side - Short to Battery	Connector: AD001, CA070, CA450. 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: CA144, CA450. Driver Side Air Curtain Harness: Cabin
24	B2294 (29)	Driver Side Air Curtain - Open Circuit	Connector: CA144, CA450. Driver Side Air Curtain Harness: Cabin
24	B2294 (30)	Driver Side Air Curtain - Short to Ground	Harness: Cabin. Connector: CA144, CA450. Driver Side Air Curtain
24	B2294 (31)	Driver Side Air Curtain - Short to Battery	Connector: CA144, CA450. Harness: Cabin
25	B2294 (24)	Passenger Side Air Curtain Squib - Low Resistance	Connector: CA145, CA450. Passenger Side Air Curtain Harness: Cabin
25	B2294 (25)	Passenger Side Air Curtain - Open Circuit	Connector: CA145, CA450. Passenger Side Air Curtain Harness: Cabin
25	B2294 (26)	Passenger Side Air Curtain - Short to Ground	Harness: Cabin. Connector: CA145, CA450. Passenger Side Air Curtain
25	B2294 (27)	Passenger Side Air Curtain - Short to Battery	Connector: CA145, CA450. 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: CA065, CA450. Driver Pretensioner Front
33	B2292 (29)	Driver Pretensioner Front - Short to Battery	Connector: CA065 CA450. Harness: Seat, Cabin
33	B2292 (30)	Driver Pretensioner Front - Open Circuit	Connector: CA065 CA450. Driver Pretensioner Front. Harness: Seat, Cabin
33	B2292 (31)	Driver Pretensioner Squib Front - Low Resistance	Connector: CA065, CA450. Driver Pretensioner Front. Harness: Seat, Cabin
34	B2292 (24)	Passenger Pretensioner Front - Short to Ground	Harness: Seat, Cabin. Connector: CA070, CA450. Passenger Pretensioner Front
34	B2292 (25)	Passenger Pretensioner Front - Short to Battery	Connector: CA070, CA450. Harness: Seat, Cabin
34	B2292 (26)	Passenger Pretensioner Front - Open Circuit	Connector: CA070, CA450. Passenger Pretensioner Front. Harness: Seat, Cabin
34	B2292 (27)	Passenger Pretensioner Squib Front - Low Resistance	Connector: CA070, CA450. Passenger Pretensioner Front. Harness: Seat, Cabin

SAFETY BELT PRETENSIONERS (CONTINUED)

Flash Code	DTC (PID code)	Fault Description	Possible Causes
38	B2292 (04)	Driver Reel Pretensioner Front - Short to Ground. NA ONLY	Harness: Cabin. Connector: CA421, CA450. Driver Reel Pretensioner Front
38	B2292 (05)	Driver Reel Pretensioner Front - Short to Battery. NA ONLY	Connector: CA421, CA450. Harness: Cabin
38	B2292 (06)	Driver Reel Pretensioner Front - Open Circuit. NA ONLY	Connector: CA421, CA450. Driver Reel Pretensioner Front. Harness: Cabin
38	B2292 (07)	Driver Reel Pretensioner Squib Front - Low Resistance. NA ONLY	Connector: CA421, CA450. Driver Reel Pretensioner Front. Harness: Cabin
39	B2292 (00)	Passenger Reel Pretensioner Front - Short to Ground. NA ONLY	Harness: Cabin. Connector: CA422, CA450. Driver Reel Pretensioner Front
39	B2292 (01)	Passenger Reel Pretensioner Front - Short to Battery. NA ONLY	Connector: CA422, CA450. Harness: Cabin
39	B2292 (02)	Passenger Reel Pretensioner Front - Open Circuit. NA ONLY	Connector: CA422, CA450. Driver Reel Pretensioner Front. Harness: Cabin
39	B2292 (03)	Passenger Reel Pretensioner Squib Front - Low Resistance. NA ONLY	Connector: CA422, CA450. Driver Reel Pretensioner Front. Harness: Cabin

IMPACT SENSORS

Flash Code	DTC (PID code)	Fault Description	Possible Causes
42	B2296 (19)	Front Impact Sensor Mount/Communication Fault	Connector: CA010, JB093, CA450. Harness: Engine, Cabin. Impact sensor mount fixing loose. Front Impact Sensor
43	B2296 (31)	Driver Side Impact Sensor Front - Mount/Communication Fault	Connector: CA215, CA450. Harness: Cabin. Impact sensor mount fixing loose. Driver Side Impact Sensor Front
44	B2296 (29)	Passenger Side Impact Sensor Front - Mount/Communication Fault	Connector: CA216, CA450. Harness: Cabin. Impact sensor mount fixing loose. Passenger Side Impact Sensor Front
45	B2296 (27)	Driver Side Impact Sensor Rear - Mount/Communication Fault	Connector: CA140, CA450. Harness: Cabin Impact sensor mount fixing loose. Driver Side Impact Sensor Rear
46	B2296 (25)	Passenger Side Impact Sensor Rear - Mount/Communication Fault	Connector: CA131, CA450 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: WS020, WS017
16	B2290 (26)	OCS Communication Fault	Connector: WS017, CA070, CA450. Harness: Seat, Cabin or Connector: CA209, CA070, WS017. Fuse: 41 Pass Fuse Box
16	B2290 (27)	OCS Module Fault	OCS Module. OCS Service Kit Required
16	B2290 (29)	Passenger Safety Belt Tension Sensor Front - Short to Ground	Connector: WS019, WS017. Harness: Seat. Passenger Safety Belt Tension Sensor Front
16	B2290 (31)	Passenger Safety Belt Tension Sensor Front - Circuit Fault	Passenger Safety Belt Tension Sensor Front. Connector: WS019, WS017. Harness: Seat

FRONT SAFETY BELT BUCKLE AND SEAT TRACK POSITION SWITCHES

Flash Code	DTC (PID code)	Fault Description	Possible Causes
48	C2200	Passenger Front Seat Track Position Switch Front - Open Circuit/Short to Battery	Connector: CA070, CA450. Driver Seat Track Position Switch. Harness: Seat, Cabin
48	C2202	Seat Track Position Switch Circuit Short to Ground - Passenger Front	Harness Seat. Harness Cabin. Connector: CA070, CA450. Seat Track Position Switch Driver
48	C2204	Passenger Front Seat Track Position Switch Front - Circuit Resistance out of Range	Driver Seat Track Position Switch. Connector: CA070, CA450
49	C1981	Driver Seat Track Position Switch - Open Circuit/Short to Battery	Connector: CA065, CA450. Driver Seat Track Position Switch. Harness: Seat, Cabin
49	C1947	Driver Seat Track Position Switch Front- Short to Ground	Harness: Seat Cabin Connector: CA065, CA450. Seat Track Position Switch
49	C1948	Driver Seat Track Position Switch Front- Circuit Resistance out of Range	Driver Seat Track Position Switch. Connector: CA065, CA450
51	B2691	Driver Safety Belt Buckle Switch Front - Open Circuit/Short to Battery	Connector: CA065, CA450. Driver Safety Belt Buckle Switch. Harness: Seat, Cabin

Flash Code	DTC (PID code)	Fault Description	Possible Causes
51	B2434	Driver Safety Belt Buckle Switch Front - Open Circuit/Short to Battery	Harness: Seat, Cabin. Connector: CA065, CA450. Driver Safety Belt Buckle Switch
51	B2435	Driver Safety Belt Buckle Switch Front - Circuit Resistance out of Range	Driver Safety Belt Buckle Switch. Connector: CA065, CA450
52	B2438	Passenger Safety Belt Buckle Switch Front - Short to Ground	Harness: Seat, Cabin. Connector: CA070, CA450. Passenger Safety Belt Buckle Switch
52	B2692	Passenger Safety Belt Buckle Switch Front - Open Circuit/Short to Battery	Connector: CA070, CA450. 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: CA070, CA450

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: : IP202, IP140, IP074. PAD Lamp. Harness: Instrument Panel
18	B1884	PAD Warning Indicator - Short to Ground (PAD warning indicator ON)	Harness: Instrument Panel. Connector: IP202, IP140, IP074
18	B1890	PAD Warning Indicator - Short To Battery (PAD warning indicator OFF)	Connector: IP202, IP140, IP074. Harness: Cabin, Instrument Panel
53	B1891	Air Bag Audible Warning - Short to Battery	Harness: Instrument Panel. Connector: IP074, IP006
53	B1892	Air Bag Audible Warning - Short to Ground or Open Circuit	Connector: IP074, IP006. Harness: 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: IP074, IP011. Harness: Instrument Panel
ON	B1869	Air Bag Warning Indicator - Open Circuit	Connector: IP074, IP011. Harness: Instrument Panel
OFF	B1869	Air Bag Warning Indicator - Short to Ground	Harness: Instrument Panel. Connector: IP074, IP011

MISCELLANEOUS (CONTINUED)

Flash Code	DTC (PID code)	Fault Description	Possible Causes
ON		Feed to Restraint Control Module Open Circuit/Short to Ground (unable to communicate with module)	Fuse 53 (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: Restraint Control Module

COMPONENT REPLACEMENT

Flash Code	DTC (PID code)	Fault Description	Parts to be Replaced
13	B1231	Crash Data Memory Full	Clear Fault Code and Cycle Ignition 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
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