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# **Tool Description**



- 1. LCD DISPLAY: shows the test results.
- **2. ENTER BUTTON:** confirms a selection of a menu list, or returns to the main menu.
- 3. SCROLL BUTTON: Scrolls through menu items or cancel an operation.
- 4. OBD II CONNECTOR: Connects the B200 to the vehicle's Data Link Connector (DLC)

# **DIRECTIONS**

- 1.) Turn on key (DO NOT START CNGINE)
- Plug tool into diagnostic connector Tool is ready to use when it displays "FA".(Reverse steps 1 and 2 if you encounter problems)
- 3.) Use the "Scroll" button to select one of the following functions:

## **Functions:**



Read Airbag Faults.

How to Read Airbag Faults. The tool automatically starts in the "FA" mode, (though it won't read the fault codes until you press the "ENTER" button). When ENTER is pressed the first number shown will be the correct code chart to use.

Note: if it shows "--". There are on codes to display. Pressing ENTER a 2<sup>nd</sup> time will display the first fault code (see page 6 for explanation.) To view the next fault press ENTER again, and so on. At the end of the fault list the display will show "--".Press ENTER to return to "FA". If you encounter problems see troubleshooting page 15"



Clear Airbag light/Faults:

How to Clear the Airbag (SRS) Light. It is important what you know exactly why the airbag light came on before resetting it always read the code and look it up first.

WARNING: DO NOT PROCEED WITH RESET UNTIL TAKING APPROPRIATE ACTION TO DIAGNOSE, UNDERSTAND AND SOLUE THE PROBLEN WITH THE AIRBAG SYSYEM.

1.) Using the "Scroll" button, select "CA": Press "ENTER"

The tool will reset the SRS light and display



If Airbag light does not appear to reset, or it cones right back on the moment you reset it, then there is still a problem with the SRS system that needs to be fixed.

1.) On the following pages, locate the correct chart for your car according to the first tow digit number displayed by the tool:

# **Code Reading Example:**

After plugging in the tool, "FA" is displayed (See page 5)

Pressing ENTER will start the process. Before showing a code the tool will first tell you which code chart to use:

First indication is the Chart #:



**First indication is never a fault code!** In this example, the tool is telling you to use the chart labeled FF (see page 7)

Press ENTER again-the first code will be displayed, example:



This is an example of a code: "1b" (not 16)

2.) Look up the two digit code in the chart to obtain meaning

After resetting a code, drive vehicle over 15mph and re-check. If code persists or the SRS light returns contact a BMW dealer.

### **USE THESE CODE DEFINITIONS WISELY:**

The code definitions contained in this manual should be regarded as a starting point for diagnosing a problem. The codes that your BMW generates can be misleading. There may also be errors in this manual. Before spending your money on a repair or replacement parts, make sure you have a clear understanding of the problem.

# **Code Tables**

### **USE THESE CODE DERINITIONS WISELY:**

The code definitions contained in this manual should be regarded as a starting point for diagnosing a problem. The codes that your BMW generates can be misleading. There may also be errors in this manual. Before spending your money on a repair or replacement parts, make sure you have a clear understanding of the problem.

### **Table FF**

#### Code Fault

2E

high

1	Crash sensor closed once
2	Crash sensor closed more than once
5	Crash sensor closed permanently
0D	Two firing circuits short-circuited
13	Crash-sensor supply wire, left, open circuit
14	Crash-sensor supply wire, right, short circuit
1B	One firing circuit, short circuit to positive
21	One firing circuit, short circuit to earth
2A	Resistance in the driver's airbag firing circuit too low
2B	Resistance in fifing circuit II (seat-belt tensioner or passenger's airbag) too
	low
2C	Resistance in firing circuit III (passenger's airbag or equivalent resistance)
	too low
2D	Resistance in the driver's airbag firing circuit too high

Warning 1: Codes can be misleading and there may also be errors in this manual.

Resistance in firing circuit II (seat-belt tensioner or passenger's airbag) too

Never depend solely on fault codes for diagnosis.

Warning 2: Most SRS repairs require a BMW factory trained technician.

2F	Resistance in firing circuit III (passenger's airbag or equivalent resistance)
	too high

31 Airbag warning light

32 Diagnostic unit faulty

#### Table 01

#### **Code Fault**

1	Control nit fault, A/D Convertor
---	----------------------------------

2 Firing circuit, driver's airbag

3 Firing circuit, belt tensioner, driver's side

Firing circuit, belt tensioner, passenger's side

Firing circuit, passenger's airbag

6 EEPROM

7 SPI communication

OC Ignition voltage, driver's airbag

0D Ignition voltage, belt tensioner, driver's side

0E Ignition voltage, belt tensioner, passenger's side

0F Ignition voltage, passenger's airbag

10 Voltage autarky capacitor

11 Supply voltage

12 Control unit fault, TZ-locking wire

13 Fault lamp

14 Seat occupancy passenger

15 Pressure sensor driver

16 Pressure sensor passenger

17 Control unit fault, temperature

18 Seat belt buckle driver

19 Seat belt buckle passenger

30 control unit fault, autarky case marker

Warning 1: Codes can be misleading and there may also be errors in this manual.

Never depend solely on fault codes for diagnosis.

31	control unit fault, safety switch/supervision
32	control unit fault, airbag driver LSH
33	Control unit fault, airbag driver LSL
34	Control unit fault, airbag driver LSL
35	Control unit fault, ignition contact feet point
36	Control unit fault, belt tensioner driver LSH
37	Control unit fault, belt tensioner driver LSL
38	Control unit fault, swinging voltage test
39	Control unit fault, belt tensioner passenger LSH
ЗА	Control unit fault, belt tensioner passenger LSL
3B	Control unit fault, power source fault
3C	Control unit fault, airbag passenger LSH
3D	Control unit fault, airbag passenger LSL
3E	Control unit fault, reed coil
3F	Control unit fault, multiplexer
41	Control unit fault, ignition capacitor airbag driver
43	Control unit fault, ignition capacitor airbag driver
44	Control unit fault, ignition capacitor belt tensioner driver
45	Control unit fault, ignition capacitor belt tensioner passenger
46	Control unit fault, ignition capacitor airbag passenger
47	Control unit fault, signal track M1
48	Control unit fault, signal track M2
49	Short circuit between firing squibs
4C	Control unit fault, Universal ZAE fault
4D	ault crashtelegramm
4F	Unknown error location

**Warning 1:** Codes can be misleading and there may also be errors in this manual.

Never depend solely on fault codes for diagnosis.

Warning 2: Most SRS repairs require a BMW factory trained technician.

## Table 02 and Table 38

#### **Code Fault**

1	internal	FCU	error

2 warn lamp

3 Supply voltage

4 Firing circuit, driver airbag

5 Firing circuit, belt tensioner, driver side

6 Firing circuit, belt tensioner, passenger side

7 Firing circuit, passenger airbag

8 Firing circuit, side airbag, front left side

9 Fining circuit, side airbag, front right side

0A Firing circuit, side airbag, rear left side

OB Firing circuit, side airbag, rear right side \

OC Firing circuit, head airbag, front lift side

0D Firing circuit, head airbag, front right side

0E Firing circuit, battery disconnection

0F Firing circuit, passenger airbag, Stage 2

10 Seat belt buckle switch, driver

11 Seat belt buckle switch, passenger

12 Sensor, side airbag, left, data line

Sensor, side airbag, left, parameter fault

14 Sensor, side airbag, left, data fault

15 Sensor, side airbag, right, data line

Sensor, side airbag, right, parameter fault

17 Sensor, side airbag, right, data fault

18 Seat occupancy detector, passenger

19 Seat occupancy detector, passenger

1A Seat occupancy detector, passenger: Coding data

Warning 1: Codes can be misleading and there may also be errors in this manual.

Never depend solely on fault codes for diagnosis.

1B	Child seat detector	12	Error lamp (AWL)
1C	Child seat detector	13	Information lamp (HWL)
1D	Child seat detector: Coding data	14	Seat belt buckle switch, driver
1F	Child seat detector: Hardware	15	Seat belt buckle switch, passenger
20	sensor, side airbag, left, Line fault	16	Satellite, left sensor (for side airbag), comms fault or open circuit
21	sensor, side airbag, right, Line fault	17	Satellite, right sensor (for side airbag), comms fault or open circuit
35	sensor, side airbag, left: Coding data	18	External over roll sensor (UERS)
36	sensor, side airbag, right: Coding data	19	Seat occupied recognition 2(SBE1)
FF	Unknown error location	1A	seat occupied recognition 1 (SBE1)
		1B	crash telegram memory
Table	e 40	1C	Firing circuit coupling, driver airbag, Stage 1
Code	e Fault	1D	Firing circuit coupling, belt tensioner, driver side
1	Firing circuit, driver airbag, Stage 1	1E	Firing circuit coupling, belt tensioner, passenger side

#### 2 Firing circuit, belt tensioner, driver side 3 Firing circuit, belt tensioner, passenger side 4 Firing circuit, passenger airbag, Stage 1 5 Firing circuit, side airbag, front left side Firing circuit, side airbag, rear left side 6 7 Firing circuit, side airbag, rear left side 8 Firing circuit, side airbag, rear left side 9 Firing circuit, head airbag, front left side 0Α Firing circuit, head airbag, front right side 0B Firing circuit, battery disconnection 1 0C Firing circuit, passenger airbag, Stage 2 0D Firing circuit, driver airbag, Stage 2 0E Firing circuit, head airbag, rear left side 0F Firing circuit, head airbag, rear right side 10 Firing circuit, battery disconnection 2

11

Supply voltage

**Warning 1:** Codes can be misleading and there may also be errors in this manual.

Never depend solely on fault codes for diagnosis.

**Warning 2:** Most SRS repairs require a BMW factory trained technician.

er side 1F Firing circuit coupling, passenger airbag, Stage 1 20 Firing circuit coupling, side airbag, front left side 21 Firing circuit coupling, side airbag, front right side 22 Firing circuit coupling, side airbag, rear left side 23 Firing circuit coupling, side airbag, rear right side 24 Firing circuit coupling, head airbag, front left side 25 Firing circuit coupling, head airbag, front right side 26 Firing circuit coupling, battery disconnection 1 27 Firing circuit coupling, passenger airbag, Stage 2 28 Firing circuit coupling, driver airbag, Stage 2 29 Firing circuit coupling, head airbag, rear left side 2A Firing circuit coupling, head airbag, rear right side 2B Firing circuit coupling, battery disconnection 2 2C Checksum coding data 2D Satellite, front, comms fault or open circuit

Seat back locking driver

2E

**Warning 1:** Codes can be misleading and there may also be errors in this manual.

Never depend solely on fault codes for diagnosis.

2F	Seat back locking passenger
30	Seat back locking K-Bus
<del>-</del> 0	Control unit fault, internal error
F	Unknown error location

## Table 10 and Table 04

## **Code Fault**

1	firing circuit, driver airbag, Stage 1
2	firing circuit, belt tensioner, driver side
3	Firing circuit, belt tensioner, passenger side
4	Firing circuit, passenger airbag, Stage 1
5	Firing circuit, side airbag, front left side
6	Firing circuit, side airbag, front fight side
7	Firing circuit, side airbag, rear left side
8	Firing circuit, side airbag, rear right side
9	Firing circuit, head airbag, front left side
0A	Firing circuit, head airbag, front right side
0B	Firing circuit, battery safety switch 1
0C	Fifing circuit, passenger airbag, Stage 2
0D	Firing circuit, head airbag, Stage 2
0E	Firing circuit, head airbag, rear left side
0F	Firing circuit, head airbag, rear right side
10	Firing circuit, battery safety switch 2
11	Firing circuit, belt tensioner, rear left
12	Firing circuit, belt tensioner, rear right
13	Firing circuit, belt tensioner, rear middle
14	Firing circuit
15	Firing circuit, driver airbag, Stage 2

 $\textbf{Warning 1:} \ \textbf{Codes can be misleading and there may also be errors in this manual}.$ 

Never depend solely on fault codes for diagnosis.

Warning 2: Most SRS repairs require a BMW factory trained technician.

16	Firing circuit
30	Firing circuit, driver airbag, Stage 1
31	Firing circuit, belt tensioner, river side
32	Firing circuit, belt tensioner, passenger side
33	Firing circuit, passenger airbag, Stage 1
34	Firing circuit, side airbag, front left side
35	Firing circuit, side airbag, front left side
36	Firing circuit, side airbag, rear left side
37	Firing circuit, side airbag, rear right side
38	Firing circuit, head airbag, front left side
39	Firing circuit, head airbag, front right side
ЗА	Firing circuit, battery safety switch 1
3B	Firing circuit, passenger airbag, Stage 2
3C	Firing circuit, driver airbag, Stage 2
3D	Firing circuit, head airbag, rear left side
3	Firing circuit, head airbag, rear right side
3F	Firing circuit, battery safety switch 2
40	Firing circuit, belt tensioner, rear left
41	Firing circuit, belt tensioner, rear right
42	Firing circuit, belt tensioner, rear middle
43	Firing circuit
44	Firing circuit, passenger airbag, Stage 2
45	Firing circuit
50	Supply voltage
51	Fault lamp (AWL)
52	warning lamp (HWL)
60	Seat belt buckle switch, driver
61	Seat belt buckle switch, passenger
62	Seat belt buckle switch, rear left

Warning 1: Codes can be misleading and there may also be errors in this manual.

Never depend solely on fault codes for diagnosis.

#### 63 Seat belt buckle switch, rear right 64 Seat belt buckle switch, rear middle 70 Seat occupancy sensor 71 Seat occupancy sensor II 72 Seat position sensor and K-Bus 73 Seat position sensor Driver 74 Seat position sensor Passenger 75 External Roll Sensor Satellite (MRSA), front 80 81 Satellite (MRSA), front left 82 Satellite (MRSA), front left 83 Satellite (MRSA), front left 84 Satellite (MRSA), front right 85 Satellite (MRSA), front right 86 Satellite (MRSA), front right Satellite (MRSA), front right 87 88 Satellite (MRSA), front left 90 Coding block (CBD-Block) 91 Crash telegram memory F0 Internal error

**End of Code Tables** 

**Warning 1:** Codes can be misleading and there may also be errors in this manual.

Never depend solely on fault codes for diagnosis.

Warning 2: Most SRS repairs require a BMW factory trained technician.

# **Glossary**

AC=Air conditioner

ABS=Anti-lock Brake System

**ASC**=Skid control(see "Intervention")

ADS=Aux Throttle Position Motor

**AHK**=Active Rear Axle Kinematics

**BLS**=Brake Light Switch

Check Engine Light: on the dashboard,

indicates the DME was detected a problem

**CC**=Check control

CD=Carbon Monoxide

**DDE**=ECU for Diesel Engine

**Diagnostic Connector:** Where the SRS Scan and Reset for BMW plugs into the car.

DISA=intake runner length tuning

mechanism

**DME**=Engine ECU (Gasoline engine):

monitors and controls all engine sensors

and functions

**DSC** = Dynamic Stability Control

**DTC** = Diagnostic Trouble Code

**DWA** = Alarm system

**E** = Communications error: See "Flashing E

below"

**EGS** = Electronic Automatic Transmission

**EKAT** = Electrically heated catalytic

convertor

**EKM** = electronic Body Module

**EML** = Electronic Throttle Control

**EVAP** = relates to fuel vapor recovery often

his code indicates a loose gas cap

**EWS** = Drive away protection(alarm system)

Fault code: a "code" stored in the SRS controller memory bank that indicates a past

or present problem.

**Fuel Trim** = adjustments to maintain proper air fuel ratio (see Lambda Control)

Flashing E: (in this product display)

communication problem in the following

**GM** = General Module

Intervention, MSR, ASC =

intervention is when another

control unit (1.e. skid control) requests a power/torque change from the *DME*. Code indicates *DME* assessed the request as being incorrect or too long.

**Lambda Control** = Code means DME is unable to maintain requisite air/fuel ratio due to external factor (air see fuel trim)

LDP = Loss Diagnosis Pump

Load Calculation Cross Check (HFM vs TPS)= when actual air flow exceeds+/-25%

of calculated air flow.

**MDK**=Motorized Throttle Valve

**MLF**=Multi function Steering Wheel

**MSR=**Drag Torque Intervention (torque reduction for anti skid) see Intervention

above

NTC=coolant temperature sensor

**Oilservice & Inspection:** Also called Si (abbrev. For service interval) maintenance

reminder lights

**PWG=**Pedal Sensor Potentiometer

QL=idle air mass adaption (see Fuel Trim

**RAM**=SRS random access memory

**ROM**=SRS program memory

**Scan Tool:** Generic term for this product

**SI**=Service Interval

**SMG=**BMW Motorsport Sequential Gearbox

TD=Tachometer Signal

**TEV=**Evap, fuel tank vent/purge valve

Ti Additive: idle fuel adaption (see fuel trim )

Ti multiplicative: adaption a percentage +/-

of injector tome (see Fuel Trim)

**TR** signal= from DME, RPM and valve position

**VANOS**=Adjustable Valve Train

**VDS=**Vehicle Description System. VIN

Digits 4-7

VIN=Vehicle identification number.

**ZAB**=see ASC

**ZKE=**Central Body Electronics

For further definitions, please consult

documentation for the vehicle.

# **Common Problems/Troubleshooting/Appendix**

## ①Flashing E message on tool:

Occasionally the B200 will flash "E" when an attempt is made to read codes or reset the Airbag/SRS light. "E" means the car is not responding to the tool: This happens when the data line (also called "diagnostic bus") in the car is "hung" or disabled.

## Things To Try to Resolve the Flashing "E":

- **1.)** Reversing the power-up sequence: Plug in the SRS Scan Reset for BMW in first, Then turning on the ignition key. This in the opposite of the routine specified by the manual and the tool label. This procedure has proven very effective on some cars.
- **2.) Insertion Depth:** Check the insertion depth of the SRS Scan Reset for BMW. If it is not fully inserted the unit will not work.
- **3.) Pin 19:** Observe that pin 19 of your diagnostic connector is not processed. A number of models had pin 19 improperly installed. While you're looking at the diag port ENTER ahead and check out all the pins.
- **4.) Cycle power:** Plug in tool, cycle the ignition key on and off two or three times (do not start engine)
- **5.)** Other warning lights: Observe that no other malfunction indicator lights are on. Often a malfunctioning module (i. e DME, EGS/transmission, ABS traction control, etc...) can hang the diagnostic bus (see above).
- 6.) Power resetting of all modules (entire car)
  - a.) Disconnect the main car battery.
  - b.) Activate the emergency flasher lights (this will fully drain all power from all ECUs) wait 5 minutes

- c.) Reconnect the main battery and try the tool again.
- **7.) Module Troubleshooting:** If you suspect a particular module is malfunctioning or damaged, you may wish to consult repair documentation for the car and attempt to isolate the problem by removing the module from the diagnostic bus. WARNNG: This procedure is for qualified mechanics only.

**ABS** service bulletin 34 01 96: BMW circulated a service bulletin and low cost repair advice detailing the malfunction of the ABS unit wiring which caused diagnostic bus problems on a large number of BMWs. This is often the problem on BMWs built prior to 10/1994 that are getting the "E" message on the SRS Scan Reset for BMW code tool.

#### 8.) The Dealer

Visit your local BMW dealership. It will not serve it's intended purpose if the diagnostic bus is impaired by a malfunctioning control module. If one of the modules is inhibiting communications it is necessary to visit a BMW dealer or qualified repair facility to diagnose and fix/replace the bad module.

# **②Flashing E message on older BMWs:**

The SRS Scan and Reset for BMW was designed to work on 1991 and later BMWs. However, from 1991 to 1993 the tool often will not work due to two factors: BMW did not wire the SRS controllers to the main diagnostic lines, and BMW did not cleanly phase out the older 5WK4-025, 027 and 035 controllers (which it is not compatible with.)

# ③Display is not working.

Every unit goes through two display tests before being shipped to you, so it is unlikely that the display is dead. The display on it is not bright enough to be read in direct sunlight or strong indirect sunlight. Cup your hand around the display or move the vehicle to a darker area. It is also possible that the tool is not powered due to insufficient insertion into the diagnostic connector or recessed pins in the BMW diagnostic connector port. See above problem 1, section 3"Pin 19".