# **CHARACTERISTICS**



# Vehicle identification

# UNITLTHE DATE OF 26.06.2003

#### **VINIDENTIFCATIONNUMBER**

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Positionn	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Code	U	U	1	R	5	A	7	1	5	3	*	*	*	*	*	*	*

POSITION	CHARACTERS EXPLANATION		
1 - 3	- manufacturer world identification,		
	UU1–AUTOMOBILE DACIA SA. ROMANIA,		
4	– vehicle destination,		
	<b>R</b> –vehicle for persons transportation,		
5	<ul><li>powertrain unit location,</li></ul>		
	<b>5</b> – transversal front engine and front drive,		
6	-carriage body type,		
	$\mathbf{A}$ – Hatchback (two volumes sedan) – restyled I,		
7	-payload location,		
	7-5 places: 2 front places + 3 rear fix bench places,		
8	– gearbox type,		
	1 – gearbox with $5 + 1$ steps,		
9	- engine code and vehicle driving post location,		
	5 – spark ignitionengine (cylindercapacity 1400 cm³),		
	E7J 262 EURO 2, left hand drive,		
	<b>6</b> – spark ignitionengine (cylindercapacity 1400 cm <sup>3</sup> ),		
	E7J 262 EURO 3, left hand drive,		
10	– year model code - <b>3</b> - 2003,		
11 - 17	– carriage body manufactuing number.		

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#### **ENGINE ASSEMBLY**

#### Characteristics

ENGINE E7J-262

#### RINGS

## Thickness (mm):

- compressionring	1.5
- sealingring	1.75
-oilingring	3

#### **CONNECTING RODS**

Connecting rod end side clearance: 0.310 to 0.572 mm.

#### ATTENTION!

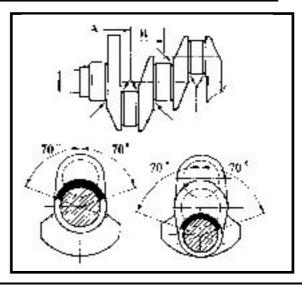
It is forbidden the use of punches for marking due to the risk of primer cracks A permanent marker is to be used.

#### **CRANKSHAFT**

Number of bearings	5
Bearings diameter (mm)	- nominal: $54.795 \pm 0.01$ - reparation: $54.550 \pm 0.005$
Crankpin diameter (mm)	-nominal: 43.98 <sub>-0,02</sub>
	- reparation 43.73 <sub>-0,02</sub>
Axialclearance (mm)	- 0.045 - 0.852 with wear - 0.045 - 0.252 without wear

In case of rectifying, rolling must remain at least on  $140^{\circ}$  of the crankpins and bearings circumference.

These areas are defined in sections **A** and **B** as per joint drawing



#### **IGNITION AND INJECTION**

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### Oxygen sensor diagnostic

#### REPARATION CONFIRMATION

Check by means of the CLIP tester, the bellow states, which must have the following configuration:

- ET103: Catalyst diagnostic taken into consideration ------ ACTIVE
- ET107: Catalyst diagnostic performed ------ ACTIVE
- no functional failure of the catalyst is detected by the CLIP tester.

The purpose of the oxygen sensor diagnostic is to detect a disturbance leading to exceeding the OBD step, caused by the HC polluting emissions. Diagnostic is performed by measuring and comparing the oscillating periods of the values red by the oxygen sensors.

The possible degradations of the oxygen sensors, are of two types:

- mechanical degradation of the electric component (case, wire broke) which is to be defined as electric failure.
- chemical degradation f the component, leading to a retardation of the sensor responding time, consequently an increase of the minimal/maximal oscillating period.

When the test conditions are accomplished, perform the average of the periods pointed out by the sensor, retrieving the parasite effects, which are compared with an OBD step average period.

#### TEST PERFORMING CONDITIONS

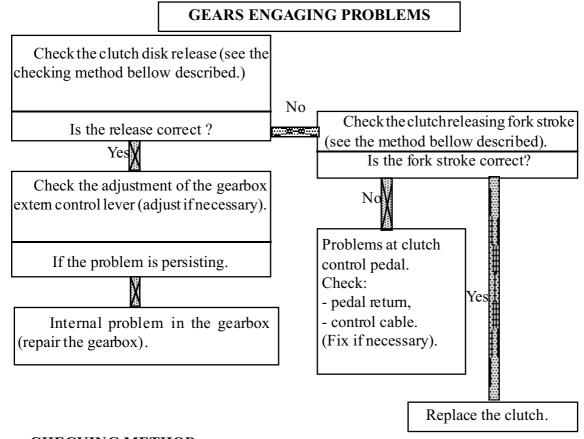
Diagnostic of the oxygen sensor can be not performed but after a certain engine running time and in some specific established operation conditions and if the preliminary conditions, achieved when setting the contact n, are achieved and preserved:

- no electric failure
- correct performing of the "learnings" by the UCE injection and of the cylinders recognition.
- no detected combustion misfire.
- Non-performing of the oxygen sensor diagnostic after contact setting on.
- water temperature to be over 75°C

Engine	Speed (Km/h)		Manifold pressure (mbar)	Stabilization period (sec)	Time before authorization (min)
E7J	63-130	1792-3712	299-799	5	14

#### **CLUTCH**

# **Diagnostic**



# CHECKING METHOD "DISK RELEASE"

The checking is to be performed at idling, with warm engine.

- release the clutch,
- wait for three seconds,
- engage the reverse driving (engagement must be performed without noise).

#### **CHECKING METHOD**

#### " CLUTCH RELEASING FORK STROKE "

By means of a lineal perform the following operations:

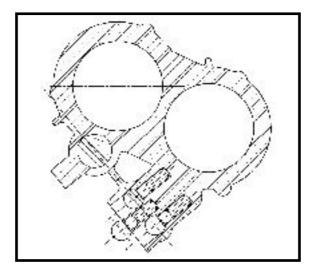
- measure the distance between the fork upper part and the clutch cable support, in the clutched position;
- measure the distance between the fork upper part and clutch cable support, in the clutch releasing position;
- calculate the difference between the two values (the fork active stroke) and compare it with the reference value (29 mm).

#### **INTERNAL CONTROLS**

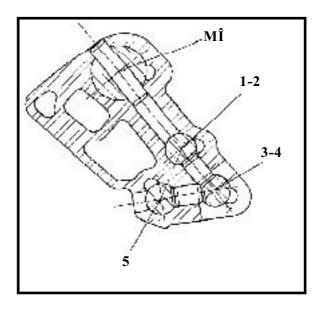
The internal control axles must not show any deformations or we aron the milling for locking balls, and their sliding on bearings must be done freely, without excessive clearance.

The contact surfaces of the forks with collar of the rocking must not show either deformations nor wear.

Ensuring of the control forks axles is performed by means of the balls and springs placed in the holes made in the mechanisms crank case.



The locking of the control axlesis done by means of some cylindrical rolls mounted inside the clutch-differential crank case.



# Brake pressure controller

#### REMARK:

Brake pressure controller is not to be repaired.

#### TIGHTENING MOMENTS (daNm)



1.5

Attachment nut of the pressure controller assembly on the carriagebody Connection screws of the rigid pipe on the pressure controller

#### DISMOUNTING

Drain of fluid, the braking circuit.

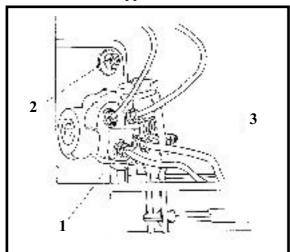
Lift the vehicleby means of a two-column elevator.

Dismount the connection screws (1) of the rigid piping on the pressure controller.

Dismount the attachmentnuts (2) of the pressure controller support on the carriage body.

Remove the support together with the pressure controller from the carriage body.

Dismount the pressure controller off the support.



#### REMOUNTING

#### Remount:

- pressure controller attachment screws on the support;
- attachmentnuts of the pressure controller assembly on the carriage body;
- connections crews of the rigid piping on the pressure controller, observing the required tightening moments.

Purge the braking circuit.

Adjust the pressure controller.

#### **GLASSES**

# Hatchback glass

#### WINDSCREENAND HATCHBACK GLASSREPLACEMENT

The replacement of these glasses is performed in case they are broken, when they are not according to the required overall dimensionsor when they have manufacturing defects (image distortions, cracks, etc).

# REPLACEMENT HATCHBACK GLASS

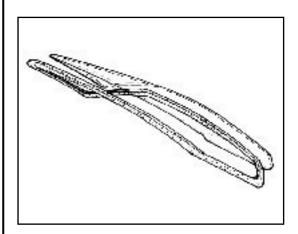
Disconnect:

- battery
- supply and mass connectors of the hatchbackdefrosting.

Remove the glass together with the gasket, by pushing it from the inside of the vehicle.

Clean the gasket and place the glass in its new gasket.

The mounting of the hatchback glass - gasket assembly is performed in the same way with the windscreen mounting



#### **INSIDE ACCESSORIES**

#### **Dashboard**

Remove the access cover of the fuse box.
Dismount the three attachment screws (14) of the fuse box.



Remove the access cover to the fuse box. Swingover the littlecaps from the dashboard lowerpart and dismount the attachments crews (15) on the driving post cross member.

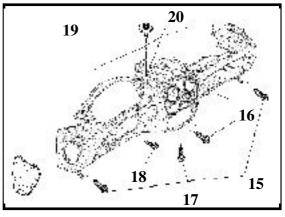
#### Dismount:

- attachment screws (16) of the climate maintenancepanel on the lower part dashboard;
- attachmentscrew (17) of the lower part dashboard on the vent-AC distributor (RACV);
- attachmentscrews (18) of the lower part dashboard on the driving post cross member,
- upper attachment screws (19) of the lower part dashboard on the driving post cross member.

#### Extract:

- headlampsadjustmentknob;
- cigarette lighter.

Detachfrom clips the connectors:



- hazard;
- rear window defrosting.

Disconnect the connectors:

- cigarettelighter;
- rear window defrosting.

Dismount the attachment nut (21) of the headlamps adjustment control.

Disconnectthe connectors:

- hazard;
- climatemaintemace control.

Detach from clips the left and right side aeration ducts.

Take out the dashboard from cockpit.



## **HEATING**

# **Control panel**

# Connector(3)

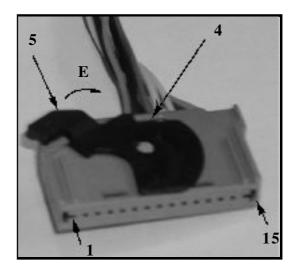
Pin	Denomination				
1	Free				
2	Free				
3	Free				
4	Free				
5	Free				
6	Free				
7	+parking lights				
8	Free				
9	Mass				
10	Free				
11	Free				
12	Free				
13	Free				
14	Free				
15	Free				

Disconnect the connector (3), carefully push the lever (4) and rotate the lever (5) in the direction of (E) arrow.

#### REMOUNTING

Perform the dismounting operations in the reverse order.

Check the operation of the control panel.



# Thermostatic expansion valve

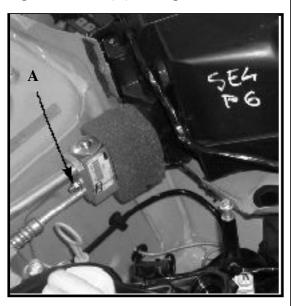
Its function is to reduce the refrigerant fluid pressure at the evaporator entrance, to a default value. In this way, the fluid passing through the evaporator may be suction by the compressor in a complete gaseous condition.

#### DISMOUNTING

Drain therefrigerant circuit by means of the charging station

#### Dismount:

- attachment nut(A) of the connection pipes;
- two attachment screws (B) of the expansionvalve (C) on evaporator.



#### REMOUNTING

Whenremounting, replace the pipes sealing gaskets.

The required tightening moment for **B** screws is of **0,8 daNm**.

The required tightening moment for A pipes attachment nut is of **0,57 daNm** 

Vacuum theunit then perform its filling with refrigerant fluid by means of the charging station.



#### **REMARK:**

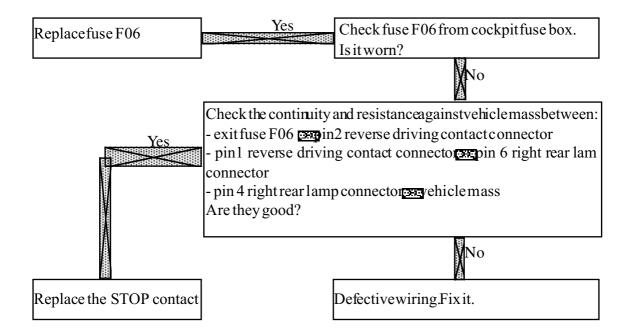
Adjustments of the expansion valve spring are to be performed only by the manufacturer.

The expansion valve is not to be repaired and not adjustable.

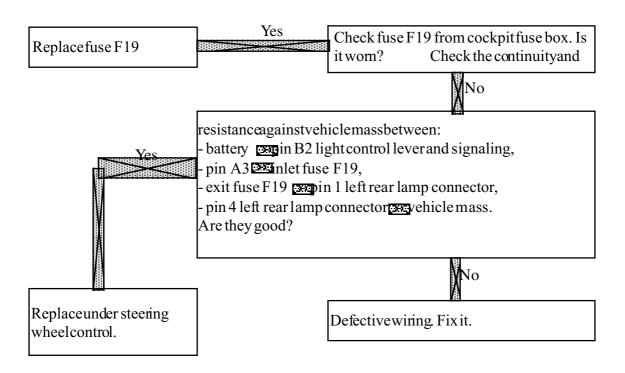
## INSIDE AND REAR LIGHTING

# Lamps failures diagnostic

#### REAR DRIVINGLAMP NOT WORKING



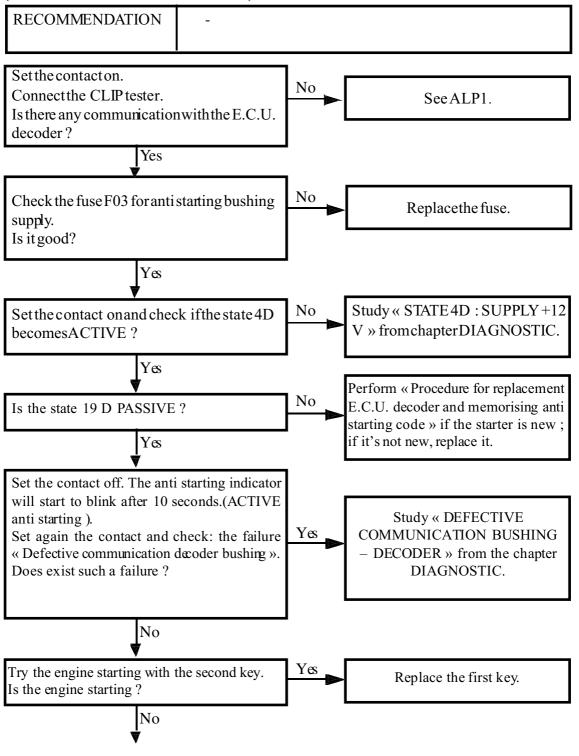
#### FOGLAMP NOT WORKING



#### **ACCOUSTIC WARNING - ANTI STARTING**

# Diagnostic

# ALP2. CONTACT SET ON THE ANTI STARTING INDICATOR BLINKS (THE ENGINE IS NOT STARTING)



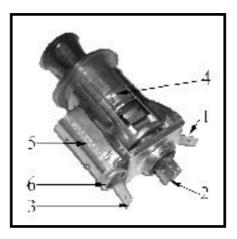
### **Electric lighter**

#### DISMOINTING

Disconnect the battery (-) terminal.

Dismount the upper part dashboard.

Disconnect connectors (1), (2) and (3). Mark identification of their mounting position.



Holding with one hand the fix part (4) dismount the lighter attachment clamp (5) on the lower part dashboard.

Extract the lighter fix body (part).

#### REMOUNTING

Position the lighter fix body in the dashboard lower part. Holding with one hand the fix body, mount the lighter attachment clamp. The required tightering moment is **1.5 Nm** applied to the fix body (**4**).

Connect the lighterconnectors, observing their mounting position existent prior to dismounting.

Mount the upper part dashboard.

Reconnect the battery (-) terminal.

Check the operation of the electric lighter.

#### **REMARK:**

In order to replace the bulb, dismount the lighter, dismount the bulb holder (6) from the clamp (5) and replace the bulb.

#### Connectors

Connector	Denomination
1	Mass
2	Supply+after contact
3	Supply+parking

# **ELECTRIC DIAGRAMS**

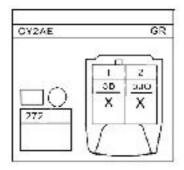
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# Wires functions in connectors and couplings

	ENGINE WIRING	X412
	E7J262	03

#### AIR TEMPERATURE INJECTION SENSOR

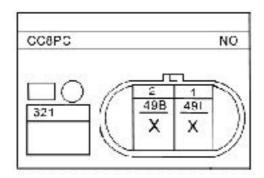
Position	Section	$\Rightarrow$	Destination
1 2	0.60 0.60	3B 3JQ	SIGNAL+AIR TEMPERATURE SENSOR MASSAIR TEMPERATURE SENSOR



# $ENGINE\,COOLING\,FAN\,RESISTANCE$

(for vehicles with air conditioning)

Position	Section	<b>₩</b>	Destination
1	3.0	49L	CONTROL+ LOWSPEED COOLING FANRESISTANCE
2	3.0	49B	CONTROL+ COOLINGFAN



# **ELECTRIC DIAGRAMS**

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# Wires functions in connectors and couplings

