



S3000 Common Rail Test System

TEST DATA

INJECTOR DATA

PART No: EJBR01001A
TYPE: -
O.E.M. REF: CITROEN C3
ENGINE: 1.4 HDI

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
TEST OIL: ISO 4113
TEST OIL TEMP: 40°C
SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	58-65	-	-	Max Fuel
1500	1200	1200	42-48	-	-	
1500	800	600	17-23	-	-	Mid Range
1500	400	600	12-14	-	-	Light Load
400	250	700	8-12	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR01401z

Type Designation:-

Manufacturer I.D.:- RENAULT

Engine:- K9K

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	65-70	Max Fuel
1500	1200	1200	43-48	
1500	800	600	17.0-20.0	Mid Range
1500	400	600	12.0-13.0	Light Load
400	250	700	10.0-11.0	Idle
1500	1350	900	50	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-170BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR01701Z

Type Designation:-

Manufacturer I.D.:- RENAULT

Engine:- K9K

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	65-70	Max Fuel
1500	1200	1200	43-48	
1500	800	600	17.0-20.0	Mid Range
1500	400	600	12.0-13.0	Light Load
400	250	700	10.0-11.0	Idle
1500	1350	900	50	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-170BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR02101Z

Type Designation:-

Manufacturer I.D.:- RENAULT

Engine:- K9K

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	65-70	Max Fuel
1500	1200	1200	43-48	
1500	800	600	17.0-20.0	Mid Range
1500	400	600	12.0-13.0	Light Load
400	250	700	10.0-11.0	Idle
1500	1350	900	50	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-170BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR02201Z

Type Designation:-

Manufacturer I.D.:- FORD

Engine:- DURATORQ 1.8 TDCI

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	87-90	Max Fuel
1500	1200	1200	55-60	
1500	800	600	32-37	Mid Range
1500	400	600	16.0-18.0	Light Load
400	250	700	12.0-13.5	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-170BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR02601Z

Type Designation:-

Manufacturer I.D.:- SSANGYONG

Engine:- D27DT

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	97-102	Max Fuel
1500	800	600	35-40	Mid Range
400	250	700	12.0-14.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-180BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR02801D
(WAS EJBR02301Z)

Type Designation:-

Manufacturer I.D.:- KIA/HYUNDAI

Engine:- 2.9

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	112-117	Max Fuel
1500	1200	1200	75-80	
1500	800	600	35-40	Mid Range
1500	400	600	17-20	Light Load
400	250	700	11.0-14.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-180BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

INJECTOR DATA

PART No: EJBR02901D / R02901D
 TYPE: -
 O.E.M. REF: HYUNDAI/KIA
 ENGINE: 2.9 CDRI

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
 TEST OIL: ISO 4113
 TEST OIL TEMP: 40°C
 SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	60-65	55	82	Max Fuel
1500	1200	1200	-	-	-	
1500	800	600	47-52	-	-	Mid Range
1500	400	600	-	-	-	Light Load
400	250	700	16-20	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR03101D

Type Designation:-

Manufacturer I.D.: - Daimler Benz

Engine:- E-Class OM646

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	65-70	Max Fuel
1500	1200	1200	45-50	
1500	800	600	22-26	Mid Range
1500	400	600	10-11	Light Load
400	250	700	6.5-7.5	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-170BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

INJECTOR DATA

PART No: EJBR03902D
 TYPE: -
 O.E.M. REF: HYUNDAI / KIA
 ENGINE: 2.9L

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
 TEST OIL: ISO 4113
 TEST OIL TEMP: 40°C
 SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	105-115	-	-	Max Fuel
1500	1200	1200	74-82	-	-	
1500	800	600	19-25	-	-	Mid Range
1500	400	600	7-11	-	-	Light Load
400	250	700	4.5-6.5	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

INJECTOR DATA

PART No: EJBR04001D
TYPE: -
O.E.M. REF: RENAULT
ENGINE: K9K

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
TEST OIL: ISO 4113
TEST OIL TEMP: 40°C
SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	65-70	-	-	Max Fuel
1500	1200	1200	40-44	-	-	
1500	800	600	20-24	-	-	Mid Range
1500	400	600	13-17	-	-	Light Load
400	250	700	12-16	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR04101D

Type Designation:-

Manufacturer I.D.:- RENAULT

Engine:- K9K

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	65-70	Max Fuel
1500	1200	1200	43-48	
1500	800	600	17.0-20.0	Mid Range
1500	400	600	12.0-13.0	Light Load
400	250	700	10.0-11.0	Idle
1500	1350	900	50	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-170BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR04201D

Type Designation:-

Manufacturer I.D.:- Daimler Benz

Engine:- E-Class OM646

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	100-110	Max Fuel
1500	1200	1200	70-75	
1500	800	600	28-33	Mid Range
1500	400	600	11-12	Light Load
400	250	700	4.5-5.5	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 160-190BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

INJECTOR DATA

PART No: EJBR04401D
TYPE: -
O.E.M. REF: SSANGYONG
ENGINE: 2.7L

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
TEST OIL: ISO 4113
TEST OIL TEMP: 40°C
SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	97-103	-	-	Max Fuel
1500	1200	1200	70-75	-	-	
1500	800	600	19-24	-	-	Mid Range
1500	400	600	7-10	-	-	Light Load
400	250	700	4-6	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.

INJECTOR DATA

PART No: EJBR04501D / R04501D
TYPE: -
O.E.M. REF: SSANGYONG KYRON
ENGINE: 2.0 XDI

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
TEST OIL: ISO 4113
TEST OIL TEMP: 40°C
SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	102-107	55	82	Max Fuel
1500	1200	1200	77-83	-	-	
1500	800	600	27-33	-	-	Mid Range
1500	400	600	11-15	-	-	Light Load
400	250	700	6-9	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.

INJECTOR DATA

PART No: EJBR04701D
TYPE: -
O.E.M. REF: SSANGYONG KYRON
ENGINE: 2.0 XDI

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
TEST OIL: ISO 4113
TEST OIL TEMP: 40°C
SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	96-106	-	-	Max Fuel
1500	1200	1200	70-75	-	-	
1500	800	600	25-30	-	-	Mid Range
1500	400	600	11-15	-	-	Light Load
400	250	700	6-9	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR05101D

Type Designation:-

Manufacturer I.D.: - RENAULT

Engine:- MEGANE 2 1.5DCI

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	60-65	Max Fuel
1500	1200	1200	40-45	
1500	800	600	17-22	Mid Range
1500	400	600	8.0-12.0	Light Load
400	250	700	7.0-10.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-180BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJBR05102D

Type Designation:-

Manufacturer I.D.: - RENAULT

Engine:- MEGANE 2 1.5DCI

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	60-65	Max Fuel
1500	1200	1200	40-45	
1500	800	600	17-22	Mid Range
1500	400	600	8.0-12.0	Light Load
400	250	700	7.0-10.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-180BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

INJECTOR DATA

PART No: EJDR06001D / R03801D
 TYPE: -
 O.E.M. REF: PEUGEOT/CITROEN
 ENGINE: 2.0 L

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
 TEST OIL: ISO 4113
 TEST OIL TEMP: 40°C
 SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	94-100	-	-	Max Fuel
1500	1200	1200	67-73	-	-	
1500	800	600	32-37	-	-	Mid Range
1500	400	600	10-14	-	-	Light Load
400	250	700	5-9	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR00301Z

Type Designation:-

Manufacturer I.D.:- FORD

Engine:- DURATORQ 2.0 TDCi

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	80-85	Max Fuel
1500	1200	1200	52-57	
1500	800	600	25-30	Mid Range
1500	400	600	15.0-18.0	Light Load
400	250	700	9.0-11.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR00401Z

Type Designation:-

Manufacturer I.D.:- FORD

Engine:- DURATORQ 2.0 TDCi

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	80-85	Max Fuel
1500	1200	1200	52-57	
1500	800	600	25-30	Mid Range
1500	400	600	15.0-18.0	Light Load
400	250	700	9.0-11.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR00402Z

Type Designation:-

Manufacturer I.D.: - FORD

Engine:- DURATORQ 2.0 TDCi

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	78.0-82.0	Max Fuel
1500	1200	1200	-	
1500	800	600	-	Mid Range
1500	400	600	-	Light Load
400	250	700	9.0-11.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.

INJECTOR DATA

PART No: EJDR00501Z
TYPE: -
O.E.M. REF: JAGUAR
ENGINE: 2.0L, 130 BHP, X404

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
TEST OIL: ISO 4113
TEST OIL TEMP: 40°C
SOLENOID RESISTANCE @ 20°C - 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	80-85	-	-	Max Fuel
1500	1200	1200	55-60	-	-	
1500	800	600	22-27	-	-	Mid Range
1500	400	600	15-20	-	-	Light Load
400	250	700	9-13	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR00502Z

Type Designation:-

Manufacturer I.D.:-

Engine:-

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors (Remove White Spacer fit seal only). Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	75-80	Max Fuel
1500	1200	1200	50-55	
1500	800	600	21-25	Mid Range
1500	400	600	15.5-17.5	Light Load
400	250	700	10.0-12.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR00504Z

Type Designation:-

Manufacturer I.D.:- FORD

Engine:- DURATORQ 2.0 TDCi 125HP

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	80-85	Max Fuel
1500	1200	1200	57-62	
1500	800	600	30-32	Mid Range
1500	400	600	13.5-14.5	Light Load
400	250	700	6.5-8.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR00701D

Type Designation:-

Manufacturer I.D.:- JAGUAR X TYPE

Engine:- 2.2L 155PS PUMA (EURO 4)

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	95-100	Max Fuel
1500	1200	1200	65-70	
1500	800	600	28-32	Mid Range
1500	400	600	12-14	Light Load
400	250	700	6.5-8.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR00801D

Type Designation:-

Manufacturer I.D.:- FORD

Engine:- MONDEO 2.0 TDCi

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	80-85	Max Fuel
1500	1200	1200	57-62	
1500	800	600	28-32	Mid Range
1500	400	600	11.5-12.5	Light Load
400	250	700	6.2-6.6	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EJDR01101D

Type Designation:-

Manufacturer I.D.:-

Engine:-

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	95-105	Max Fuel
1500	1200	1200	65-70	
1500	800	600	27-32	Mid Range
1500	400	600	10.5-11.5	Light Load
400	250	700	13.0-14.0	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 140-180BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.

INJECTOR DATA

PART No: EMBR00002D
TYPE: -
O.E.M. REF: MERCEDES SPRINTER, E220 +
ENGINE: 2.2 L (OM651)

TEST CONDITIONS

TEST PUMP: SUITABLE CR PUMP
TEST OIL: ISO 4113
TEST OIL TEMP: 40°C
SOLENOID RESISTANCE @ 20°C – 0.4Ω

- Remove all washers from injectors.
- Fit injectors to rack.
- Fit injector pipes.
- Attach injector cables T031-3401.
- Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Max Back Leak		Comments
				cc/1000	cc/min	
1000	1000	700	N/A	-	-	Purge System & Check for Leaks
1500	1600	1600	90-100	-	-	Max Fuel
1500	1200	1200	76-80	-	-	
1500	800	600	27-33	-	-	Mid Range
1500	400	600	12-16	-	-	Light Load
400	250	700	7-11	-	-	Idle
1500	1350	900	N/A	55	82	Max Back Leakage
400	150-250	700	N/A	-	-	S.O.I

Start of Injection

- 1) Stop test bench.
- 2) Reduce rail pressure on S3000 to zero.
- 3) Remove fuel connection T031-3052.
- 4) Close protective cover.
- 5) Run test bench to 400RPM and increase rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes when rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.



S3000 Common Rail Test System

TEST DATA

Injector Designation:- EMBR00101D

Type Designation:-

Manufacturer I.D.:- FORD/PSA

Engine:- 2.0 TDCI, 2.0 HDI

Testing Prerequisites

Mount Suitable Test Pump

Test Oil Specification- ISO 4113

Test Oil Temperature- 40 C

Solenoid Resistance @ 20°C - 0.4Ω

Remove all washers. Fit Injectors to Injector rack. Attach cables T031-3401 and metering pipes to injectors. Close protective cover.

Pump Speed RPM	Rail Pressure BAR	Pulse Width	Delivery cc/1000	Comments
1000	1000	1200		Purge System
2000	1500	1200	N/A	Check for Leaks
1500	1600	1600	97-102	Max Fuel
1500	1200	1200	72-77	
1500	800	600	23-27	Mid Range
1500	400	600	9-13	Light Load
400	250	700	4-8	Idle
1500	1350	900	55	Max Back leakage

Start of Injection

Stop Test Bench. Reduce Rail Pressure on S3000 to Zero.

Remove Fuel Connection T031-3052. Close Protective cover. Run Test Bench to 400RPM. Increase Rail pressure slowly until atomised fuel can just be seen emitting from nozzle holes. Rail pressure should be 150-200BAR.

Note:-

When calibrating more than one injector of the same number ensure that all flow rates are matched through the set.