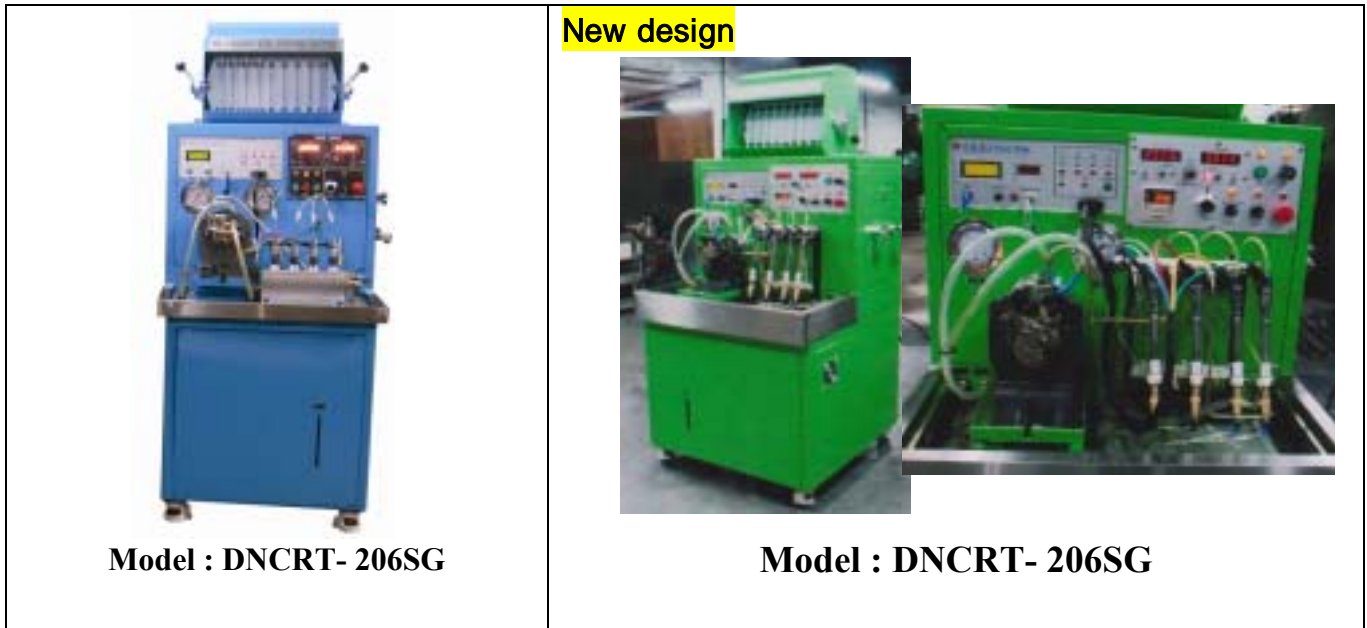


Common rail system test bench



- Testing for injector injection quantity
- Testing for injection figures
- Testing for injector injection returns
- Testing for various high pressure outputs (Bosch, Delphi, Denso)
- Testing for various common rail high pressure input
- All kinds of common rail simulation testing
- Injector automatic cleaning during testing (**Option**)
- Injector cleaning during vehicle engine starting (**Option**)



Various Adapters



Bosch CP1 pump



Bosch CP 3 pump



Delphi pump



Fuel capacity display



Digital control box



High pressure pump and injector

* Specification

High Pressure pump drive motor	AC 220V/380V/3PH/50 or 60HZ (control by inverter) 4 cylinders / 7.5KW (10 HP)
Low pressure pump drive motor	AC 220V/380V/3PH/50 or 60HZ 200W (1/3HP)
Low pressure pump	Output pressure 0~7 kg/cm ² Max. output flow 7 ℓ / min
Fuel tank	20 ℓ (working capacity 15 liters)
Temperature control	0 ~ 100
Measuring glass	150 cc (6 ea), 32cc (12 ea) - both sides
Stroke counter	0 ~ 1050 turns
Engine RPM	600 ~ 4,100 (600,650m,700 ...4,100) Digit
High pressure pump RPM	0 ~ 3,000 (4 digit 0 ~9999 rpm indication)
Low pressure analog gauge	100 Ø 6 kg/cm ² (Industrial precision stainless steel)
Low pressure regulator	0 ~ 6kg/cm ² supply pressure control
High pressure digital type	0 ~ 2000 bar
High pressure regulator	0 ~ 2000 kg/cm ² (2000 bar) pressure control
High pressure pump output	measuring valve
Fuel cooling device	400 x 400 (mm)
Fan for cooling (motor with 40W)	300 x 300 (mm)
Fuel filter for line	30 Mierons
Test zig attach bed	220 x 35 x 600 (WxDxH) -T groove type

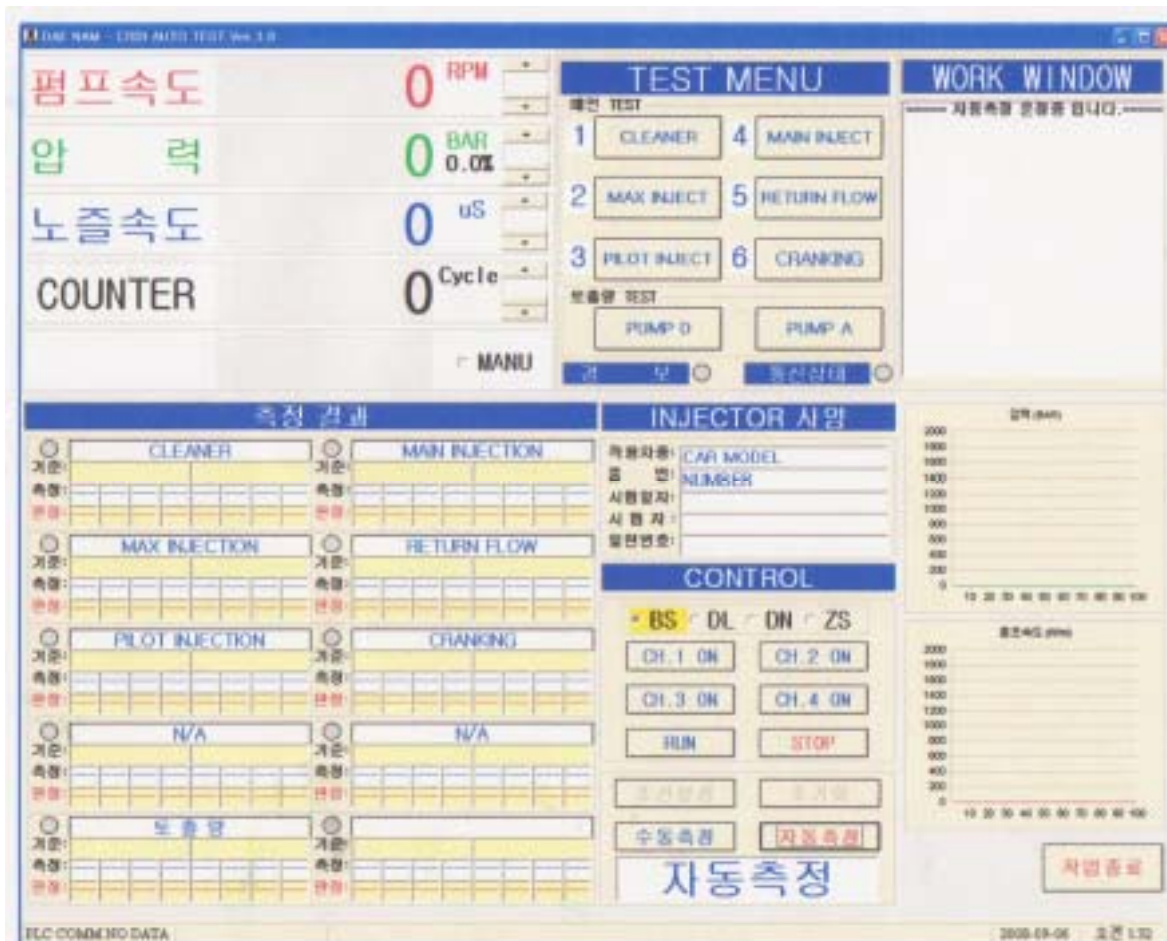
* Standard accessories & tools

- High pressure pipe for high pressure pump and rail supply : 1 EA (3 Ø x 8Ø x 600)
- High pressure pipe for injector spray : 4EA (2 Ø x 6Ø x 600)
- Zig for injector for Bosch, Delphi, Denso : 4 EA per each
- Injector power connector : 2 sets
- Pressure sensor connector : 1 EA
- Ring bracket for Bosch H.P pump : 1 EA & connecting bracket for Bosch H.P pump : 1EA
- Ring bracket for Delphi H.P pump : 1 EA & connecting bracket for Delphi H.P pump : 1EA
- Ring bracket for Denso H.P pump : 1 EA & connecting bracket for Denso H.P pump : 1EA
- H.P pump mounting bracket : 1EA
- Rotation safety cover : 1EA
- Measuring glass : 150 cc (6EA), 32 cc (12EA)
- T bolt (2EA) and others

Common rail tester. (Automatic/manual test by PC. - new model)

Model . DNCRT-206WG





FLC COMBERO TEST Ver.1.0
공기

펌프속도 1000 RPM

압력 500 BAR 0.0%

노즐속도 600 RPM

COUNTER 100 Cycle

MANU

TEST MENU

테스트 TEST

1 CLEANER	4 MAIN INJECT
2 MAX INJECT	5 RETURN FLOW
3 PILOT INJECT	6 CRANKING

보충액 TEST

PUMP D	PUMP G
--------	--------

공기 모 동전상태

WORK WINDOW

수동측정 보정용입니다.

측정 결과

CLEANER		MAN INJECTION	
기준: 45 - 55 cc	측정: []	기준: 77 - 83 cc	측정: 25 - 30 cc
기준: 82 - 88 cc	측정: 17 - 22 cc	기준: 67 - 73 cc	측정: 24 - 29 cc
MAX INJECTION		RETURN FLOW	
기준: 77 - 83 cc	측정: 25 - 30 cc	기준: 21 - 27 cc	측정: []
기준: []	측정: []	기준: []	측정: []
PILOT INJECTION		CRANKING	
기준: []	측정: []	기준: []	측정: []
기준: []	측정: []	기준: []	측정: []
N/A		N/A	
기준: []	측정: []	기준: []	측정: []
기준: []	측정: []	기준: []	측정: []
보충액		[]	
기준: 85 - 95 cc	측정: []	기준: []	측정: []
기준: []	측정: []	기준: []	측정: []

INJECTOR 사양

적용차종: 스타/소렌/리베 4AD00

품번: []

시행일자: 2008-09-06

시험지: []

발판번호: []

CONTROL

BS DL DN ZS

ON 1 ON	ON 2 ON
ON 3 ON	ON 4 ON
ON	ON

조건설정 호기형

수동측정 자동측정

수동측정

INJECTOR 사양

적용차종: 스타/소렌/리베 4AD00

품번: []

시행일자: 2008-09-06

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CONTROL

BS DL DN ZS

ON 1 ON	ON 2 ON
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ON	ON

조건설정 호기형

수동측정 자동측정

수동측정

WORK WINDOW

수동측정 보정용입니다.

MPa

200
180
160
140
120
100
80
60
40
20
0

10 20 30 40 50 60 70 80 90 100

cc/min

200
180
160
140
120
100
80
60
40
20
0

10 20 30 40 50 60 70 80 90 100

작업종료

FLC COMBERO DATA

2008-09-06 오전 1:44

Combination Common Rail System Test Bench

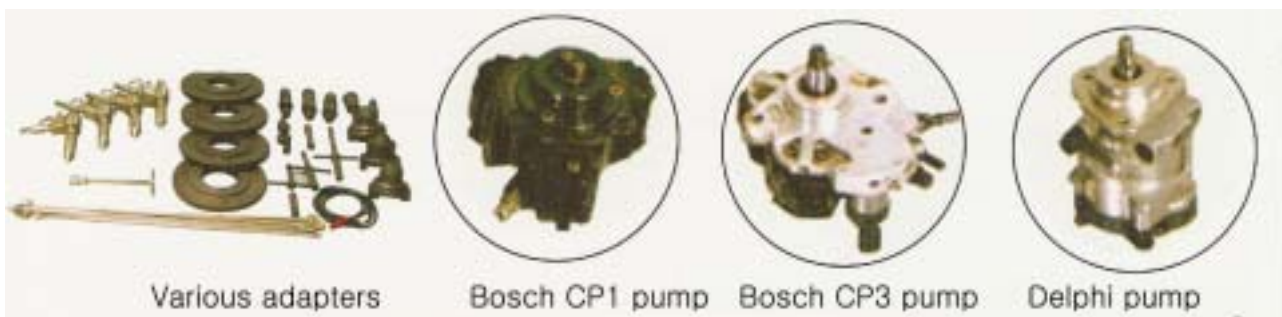
(Common rail + Injection pump tester)



Model : DN-CRT-206VG

Function of tester

- Test for spray volume of injector
- Test for spray form of injector
- Test for return volume of sprayed volume by injector
- Test for flow volume of various high pressure supply pump (Bosch, Delphi, Denso)
- Test for various common rail high pressures
- Simulation test for various common rails
- Injector auto cleaning function while test **(optional)**
- Injector auto cleaning function while car engine works **(optional)**
- Spray test for rotary (VE, VM) injection
- Pressure test for injection pump feed pump
- Opening valve pressure test for injector nozzle



Various adapters

Bosch CP1 pump

Bosch CP3 pump



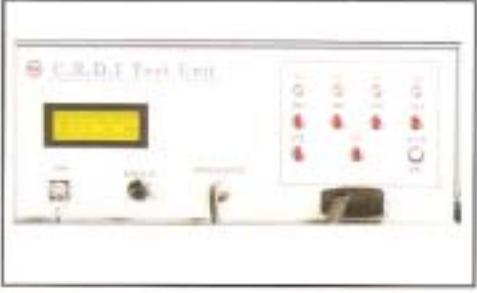
Delphi pump

Various high pressure pumps and adaptors

Major Specifications

- **High Pressure Pump Drive Motor: AC220v/380v/3ph/60Hz (Control by inverter) 7.5kw (10HP)**
Rotary (VE.VM)Injection pump testing : 6 cylinders
Common rail tester : 4 cylinders
- Low Pressure Pump Driver Motor: AC220v/380v/3ph/60Hz 200w(1/3 Hp)
- Low Pressure Pump: Output pressure 0-7kg /cm² max output flow 7ℓ/min
- Fuel tank: 20ℓ (Working capacity 15liters)
- Temperature control: 0-100 Cooling air type
- Glass (measuring glass pipe): 150cc6ca 32cc12ea both sides
- Stroke Counter: 0-1050 Turns
- Engine r.p.m. : 600-4100 (600, 650, 700 --- 4100) Digit
- High Pressure Pump r.p.m: 0-3000 (4 digit 0-9999 r.p.m indication)
- Low pressure analog gauge : 100Ø 6kg/cm² (industrial precision stainless type)
- Low pressure Regulator : 0-6kg/cm² supply pressure control
- High pressure analog gauge : 100Ø 2000kg/cm² (industrial precision stainless type)
- High pressure Regulator : 0-2000kg/cm² (2000bar) pressure control
- High pressure Pump flow measuring Valve
- Radiator for fuel cooling (width) 400mm x (length)400mm
- Fuel filter for lines 30Mierons
- Timer for setting of test duration: 0-60 Minutes
- Test jig fixture bed : (w)220 x (d)35 x (l)600 T home type
- Pressure sensor connector
- Analog gauge for feed pump 60Ø 0-15kg/cm² (industrial precision stainless)
- DC Power supply 12V/24V connector

Features of DN-CRIPT-206W

	<p>High pressure pump, plunger, injector fixture</p> <ul style="list-style-type: none"> ● Equal effective functions of 2 testers as one tester (Common rail tester + plunger tester) ● Maximize effective test results with changing adaptors for common rail injector and plunger injector ● High pressure pump and plunger could be tested by changing of ring bracket
	<p>Fuel level indicator</p> <ul style="list-style-type: none"> ● Tests for volume of sprayed fuel, returned volume and high pressure pump flow could be done by one time test ● Tests could be done continuously by fixing measuring glass at both sides. ● Measuring the level of oil without spray by the type of orifice nozzle flow
	<p>Digital control box</p> <ul style="list-style-type: none"> ● Possible to various channels for test of spray for injector. ● Possible to have one touch test for different types of common rails (Bosch, Delphi, Denso) ● Measuring spray by engine r.p.m, and rail pressure is displayed as digital and analog.

