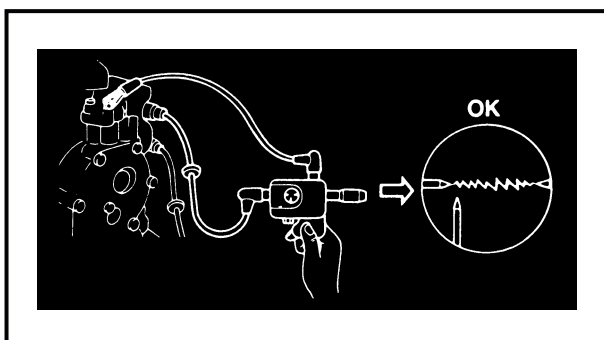
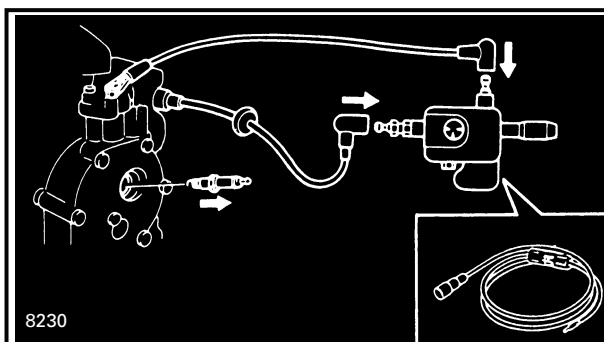
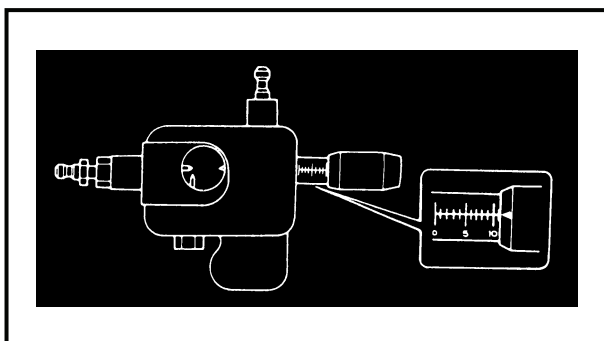
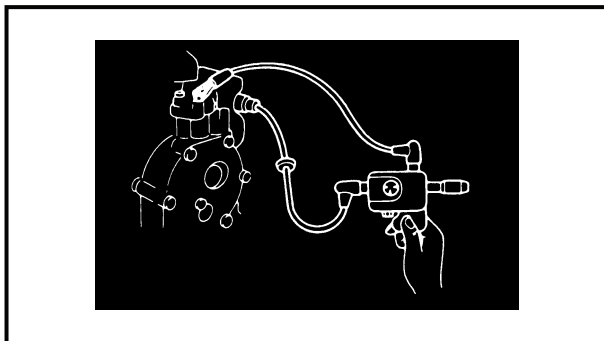
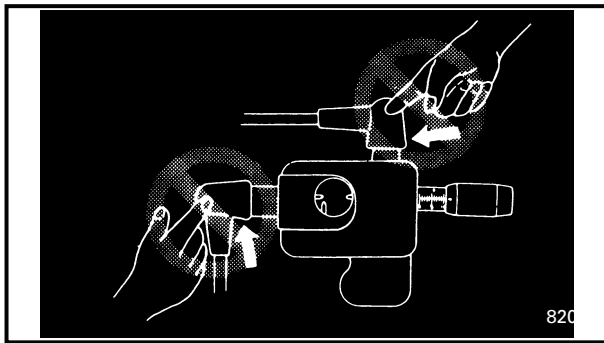
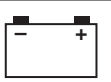




INSPECTING THE IGNITION SPARK GAP

⚠ WARNING

- Do not touch any of the connections of the spark gap tester lead wires.
- Do not let sparks leak out of the removed spark plug cap.
- Keep flammable gas or liquids away, since this test can produce sparks.

Inspect:

- Ignition spark gap
Above specification → Replace the spark plug.
Below specification → Inspect the CDI unit output.



Ignition spark gap
9 mm (0.4 in)

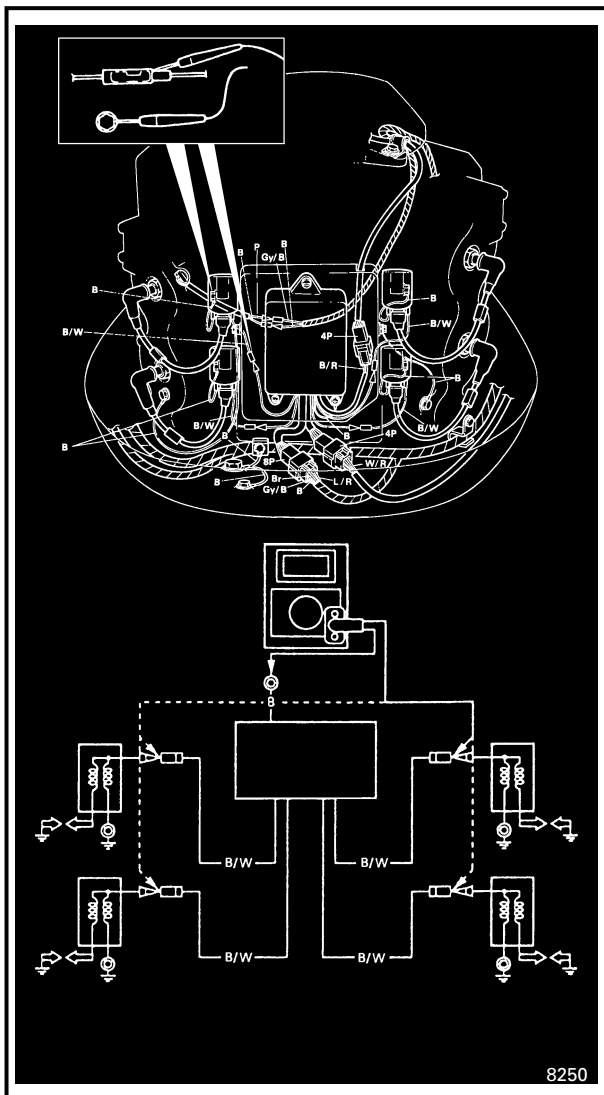
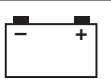
Inspecting steps

- (1) Remove the spark plugs from the engine.
- (2) Connect a spark plug cap to the spark gap tester.
- (3) Set the spark gap length on the adjusting knob.



Spark gap tester
YM-34487 / 90890-06754

- (4) Crank the engine and observe the spark through the discharge window of the spark gap tester.



MEASURING THE IGNITION SYSTEM PEAK VOLTAGE

⚠ WARNING

When checking the peak voltage do not touch any of the connections of the digital tester lead wires.

NOTE:

- If there is no spark or the spark is weak, continue with the ignition system test.
- If a good spark is obtained, the problem is not with the ignition system, but possibly with the spark plug(s) or another component.

1. Measure:

- CDI unit output peak voltage
Above specification → Replace the ignition coil.
Below specification → Measure the charge coil output peak voltage.



**CDI unit output peak voltage
(oil injection except for 115BETO models)**

Black/white (B/W) – Black (B)

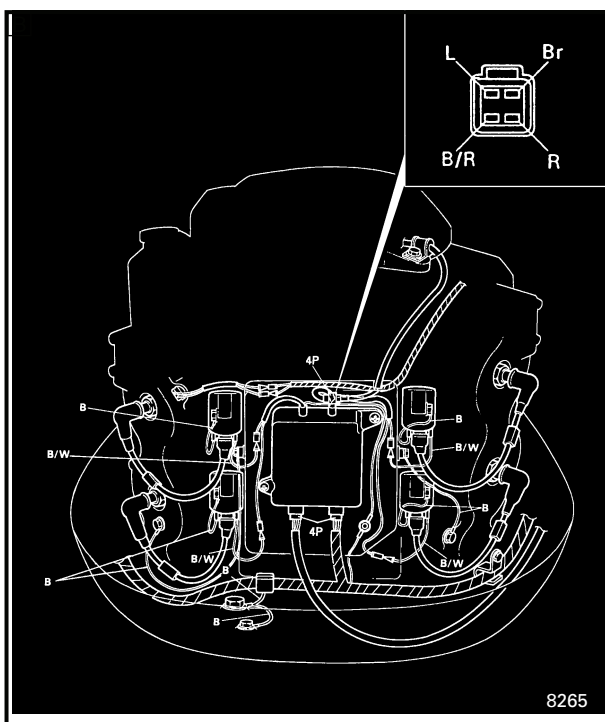
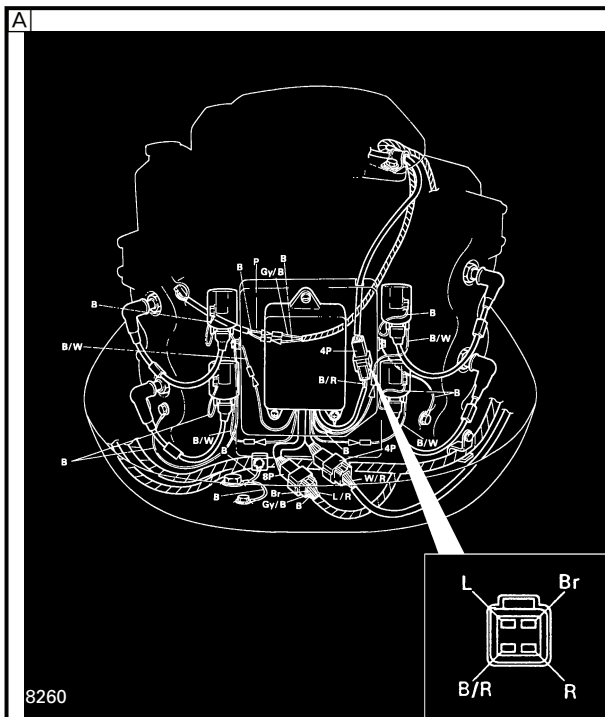
r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	—	125	140
		140	145



**CDI unit output peak voltage
(pre-mixed and 115BETO models)**

Black/white (B/W) – Black (B)

r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	—	85	140
		140	135



2. Measure:

- Charge coil output peak voltage
Above specification → Measure the pulser coil output peak voltage.
Below specification → Replace the charge coil.


**Charge coil output peak voltage
(oil injection except for 115BETO
models)**
Red (R) – Brown (Br)

r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	170	160	165

Black/red (B/R) – Blue (L)

r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	45	45	165


Test harness (4-pin)
YB-38831 / 90890-06771

**Charge coil output peak voltage
(pre-mixed and 115BETO models)**
Red (R) – Brown (Br)

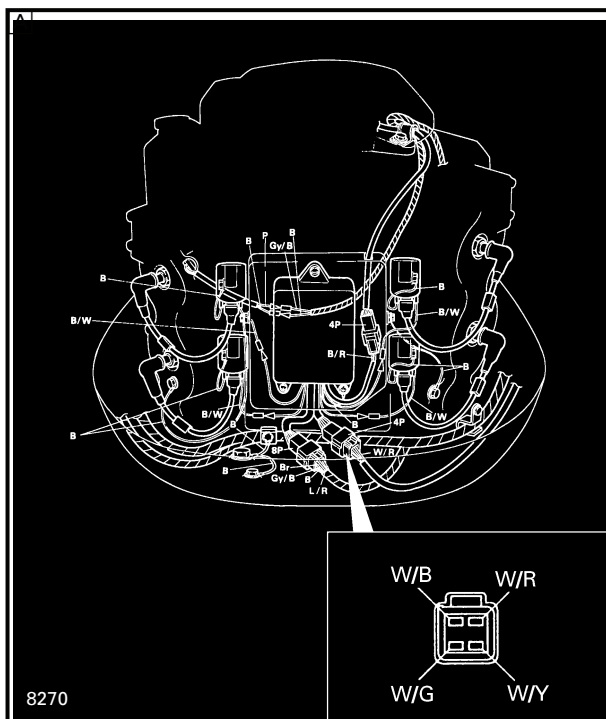
r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	95	105	160

Black/red (B/R) – Blue (L)

r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	30	30	160


Test harness (4-pin)
YB-38831 / 90890-06771
A Oil injection except for 115BETO models

B Pre-mixed and 115BETO models



3. Measure:

- Pulser coil output peak voltage

Above specification → Replace the CDI unit.

Below specification → Replace the pulser coil.

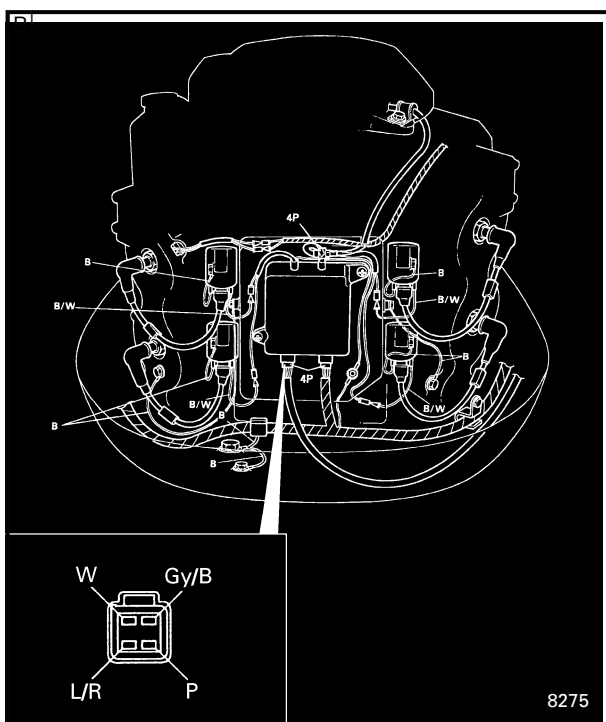

**Pulser coil output peak voltage
(oil injection except for 115BETO models)**

White/red (W/R) –
White/yellow (W/Y)
White/black (W/B) –
White/green (W/G)

r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	2.5	2.5	7.0
			12



Test harness (4-pin)
YB-38831 / 90890-06771


**Pulser coil output peak voltage
(pre-mixed and 115BETO models)**

White/red (W/R) –
White/yellow (W/Y)
White/black (W/B) –
White/green (W/G)

r/min	Circuit	Loaded	
	Cranking	1,500	3,500
V	3.0	2.5	8.0
			12



Test harness (4-pin)
YB-38831 / 90890-06771

- ☐ A Oil injection except for 115BETO models
☐ B Pre-mixed and 115BETO models