FORCE Outboards

service bulletin

No. 93-8

Correction to 1994 Technician's Handbook 90-150 Ignition System Test Charts

Some errors have been found on the ignition test charts in the 1994 Technician's Handbook 90-823871940.

Enclosed are the corrected test procedures. The corrected test procedures are adhesive backed and should be placed over the incorrect test procedures on pages 6-28, 6-30, and 7-25.

(page 6-28)

90 HP Outboard

	Test 5: Stator Resistance Test		
	Disconnect leads from switch box.		
SR1	Red meter lead to BLU stator lead.	x1k ohm	3600-4200 ohms. If below specs replace stator.
SR2	Black meter lead to RED stator lead.		
SR3	Red meter lead to RED stator lead.		
SR4	Black meter lead to engine ground.	x1 ohm	90-140 ohms. If below specs replace stator.

(page 6-30)

120 HP Outboard

	Test 5: Stator Resistance Test		
	Disconnect leads from switch box.		
SR1	Red meter lead to BLU stator lead.	x1k ohm	6800-7600 ohms. If below specs replace stator.
SR2	Black meter lead to BLU/WHT stator lead.		
SR3	Red meter lead to RED stator lead.		
SR4	Black meter lead to RED/WHT stator lead.	x1 ohm	90-140 ohms. If below specs replace stator.

(page 6-30)

Test 8:

No Bias Circuit

provided by http://www.crowleymarine.com

150 HP Outboard

Test 4: Primary Input Voltage **VT1** Red meter lead to coil (+) terminal. **VT2** Black meter lead to coil (–) terminal.	400VDC on DVA Meter	150-250 volts. If all readings below specs replace switch box. If only one coil is below specs either the trigger, coil, or switch box is bad. Perform test 5 and test 6. If trigger & coil test good replace switch box.
Test 5: Trigger Resistance Test Disconnect leads from switch box. **T1** Red meter lead to BRN (#1) trigger lead. **T2** Black meter lead to WHT/BLK trigger lead. **Note:** WHT (#2), VIO (#3), BLK (#4), YEL (#5)-WHT/BLK is common.	x100 ohm	1100-1400 ohms. If not within specs replace trigger.
Test 6: Coil Resistance Test Remove leads from coil before testing. **CT1** Primary Resistance: Red meter lead to to coil (+) terminal. **CT2** Black meter lead to coil (–) terminal. **CT3** Secondary Resistance: Red meter lead to coil tower. **CT2** Black meter lead to coil (–) terminal.	x1 ohm x100 ohm	.02-.04 ohms. If not within specs replace coil. 800-1100 ohms. If not within specs replace coil.

provided by http://www.crowleymarine.com

(page 6-28)

90 HP Outboard

	Test 5: Stator Resistance Test		
	Disconnect leads from switch box.		
SR1	Red meter lead to BLU stator lead.	x1k ohm	3600-4200 ohms. If below specs replace stator.
SR2	Black meter lead to RED stator lead.		
SR3	Red meter lead to RED stator lead.		
SR4	Black meter lead to engine ground.	x1 ohm	90-140 ohms. If below specs replace stator.

(page 6-30)

120 HP Outboard

	Test 5: Stator Resistance Test		
	Disconnect leads from switch box.		
SR1	Red meter lead to BLU stator lead.	x1k ohm	6800-7600 ohms. If below specs replace stator.
SR2	Black meter lead to BLU/WHT stator lead.		
SR3	Red meter lead to RED stator lead.		
SR4	Black meter lead to RED/WHT stator lead.	x1 ohm	90-140 ohms. If below specs replace stator.

(page 6-30)

Test 8:

No Bias Circuit

provided by http://www.crowleymarine.com

150 HP Outboard

Test 4: Primary Input Voltage **VT1** Red meter lead to coil (+) terminal. **VT2** Black meter lead to coil (–) terminal.	400VDC on DVA Meter	150-250 volts. If all readings below specs replace switch box. If only one coil is below specs either the trigger, coil, or switch box is bad. Perform test 5 and test 6. If trigger & coil test good replace switch box.
Test 5: Trigger Resistance Test Disconnect leads from switch box. **T1** Red meter lead to BRN (#1) trigger lead. **T2** Black meter lead to WHT/BLK trigger lead. **Note:** WHT (#2), VIO (#3), BLK (#4), YEL (#5)-WHT/BLK is common.	x100 ohm	1100-1400 ohms. If not within specs replace trigger.
Test 6: Coil Resistance Test Remove leads from coil before testing. **CT1** Primary Resistance: Red meter lead to to coil (+) terminal. **CT2** Black meter lead to coil (–) terminal. **CT3** Secondary Resistance: Red meter lead to coil tower. **CT2** Black meter lead to coil (–) terminal.	x1 ohm x100 ohm	.02-.04 ohms. If not within specs replace coil. 800-1100 ohms. If not within specs replace coil.

provided by http://www.crowleymarine.com