

Electrical Test Program – Electronic Accelerator (EA) Test

⚠ WARNING!

Risk of severe injury when touching ignition parts which produce high voltages. Do not touch ignition components.

Persons with heart pacemakers are not to perform repairs on this type of ignition system.

Preparation for Test:

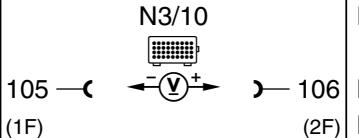
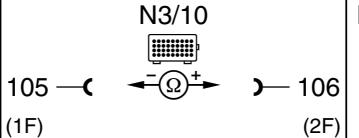
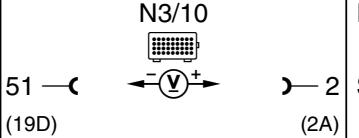
1. Review section 0,
2. Review 22 entirely,
3. Ignition: **OFF**,
4. Connect test cable with socket box to N3/10.

⇒	Test scope	Test connection	Test condition	Nominal value	Possible cause/remedy	
1.0	P1 542 P0 507	Pedal value sensor (B37) Signal Nominal value potentiometer 1	 15 —< +> 16 (23C) (24C)	Ignition: ON Accelerator pedal position: CTP WOT with kick-down	0.2 – 0.5 V 4.3 – 4.8 V	⇒ 1.1, Wiring, B37
1.1		Voltage supply Nominal value potentiometer 2	 15 —< +> 14 (23C) (22C)	Ignition: ON	4.75 – 5.25 V	Wiring, N3/10
2.0	P1 542 P0 507	Pedal value sensor (B37) Signal Nominal value potentiometer 2	 18 —< +> 17 (26C) (25C)	Ignition: ON Accelerator pedal position: CTP WOT with kick-down	0.1 – 0.4 V 2.1 – 2.5 V	Wiring, B37

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3.0	PO 507	EA/CC/ISC actuator (M16/6)	N3/10 	Ignition: ON		⇒ 3.1, Wiring, M16/6
	PO 120	Signal	88 —<  >— 87 (32E) (31E)	Accelerator pedal position: CTP WOT or kick-down	4.0 – 4.6 V < CTP value	
	PI 186	Actual value potentiometer 1	N3/10 	Accelerator pedal position: CTP WOT or kick-down	0.3 – 0.9 V > CTP value	
	PI 580	Actual value potentiometer 2	88 —<  >— 90 (32E) (34E)			
3.1		Voltage supply Actual value potentiometers 1 and 2	N3/10 	Ignition: ON	4.75 – 5.25 V	Wiring, N3/10
			88 —<  >— 89 (32E) (33E)			

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4.0	PI 1186 PI 580	EA/CC/ISC actuator (M16/6) Activation of actuator motor	 105 —(1F)—  — 106 (2F)	Ignition: ON Engine: at Idle ECT > 70 °C	0.8 – 2.3 V 1.0 – 2.5 V Value oscillates.	Wiring, M16/6, N3/10
		Actuator motor resistance	 105 —(1F)—  — 106 (2F)	Ignition: OFF	< 10 Ω	
5.0		With AT only P/N recognition	 51 —(19D)—  — 2 (2A)	Ignition: ON Selector lever position: P/N R, D, 4, 3, 2, 1	11 – 14 V < 2.0 V	Wiring, Test ETC, see DM, Chassis & Drivetrain, Vol. 1.