



	Type	sub-section
<b>RENAULT 5</b>	122 9B	17
	X40 2357FGJ KM	17
<b>RENAULT Clio</b>	X57 234NP	17
<b>RENAULT 9</b>	X42 2356CDLNR5	17
<b>RENAULT 11</b>	X37 2356CDLNR5	17
<b>RENAULT 18</b>	134 01235AB	17
	135 01235AB	17
<b>RENAULT Fuego</b>	136 01235AB	17
<b>RENAULT 19</b>	X53 0367EHMP	17
<b>RENAULT 20</b>	127 79	17
<b>RENAULT 21</b>	X48 1249DJMN	17
<b>RENAULT 25</b>	X29 7B	17
<b>RENAULT Espace</b>	X11 2	17
<b>RENAULT Trafic</b>	PXX 28	17
	TXX 28	17
	VXX 2	17
<b>RENAULT Master</b>	RXX 2	17

*This note cancels and replaces NT 1463.*

**17 INTEGRAL ELECTRONIC IGNITION**

- Engine:
- Gearbox:

**Basic Manual:**

Fault-finding, allocation and checking of AEI.

\*The repair methods given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The methods may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed.

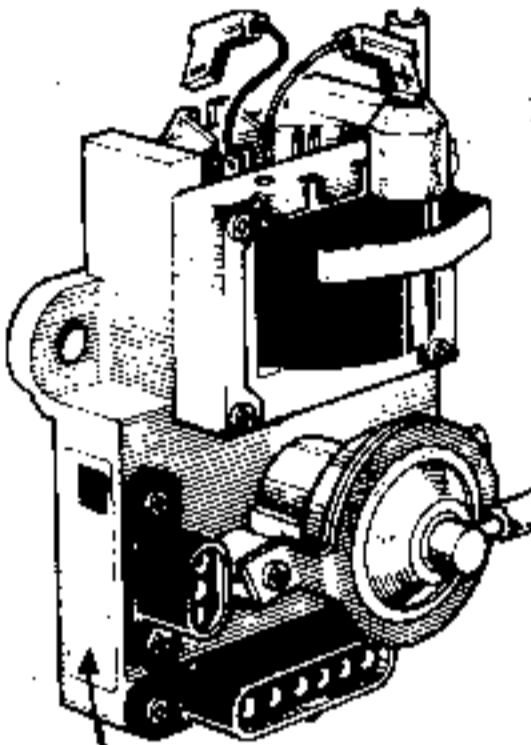
All copyrights reserved by the Régie Nationale des Usines Renault.

Copying or translating, in part or in full, of this document or use of the service part reference numbering system is forbidden without the prior written authority of the Régie Nationale des Usines Renault.

### CHECKING THE AEI MODULE

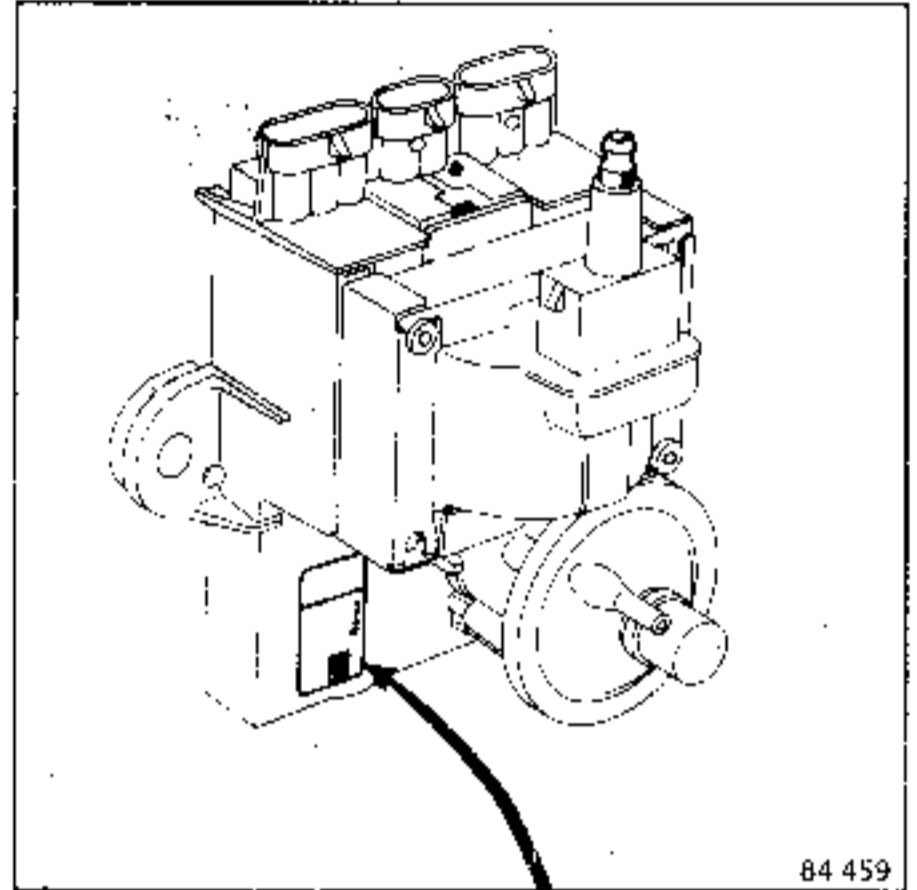
#### IDENTIFICATION OF AEI MODULES AND ADVANCE CURVES

AEI MODULE TYPE D or E



84 491

AEI MODULE TYPE F or ZD

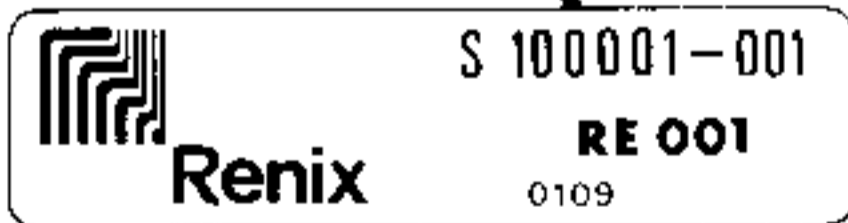


84 459

#### IDENTIFICATION OF CURVES

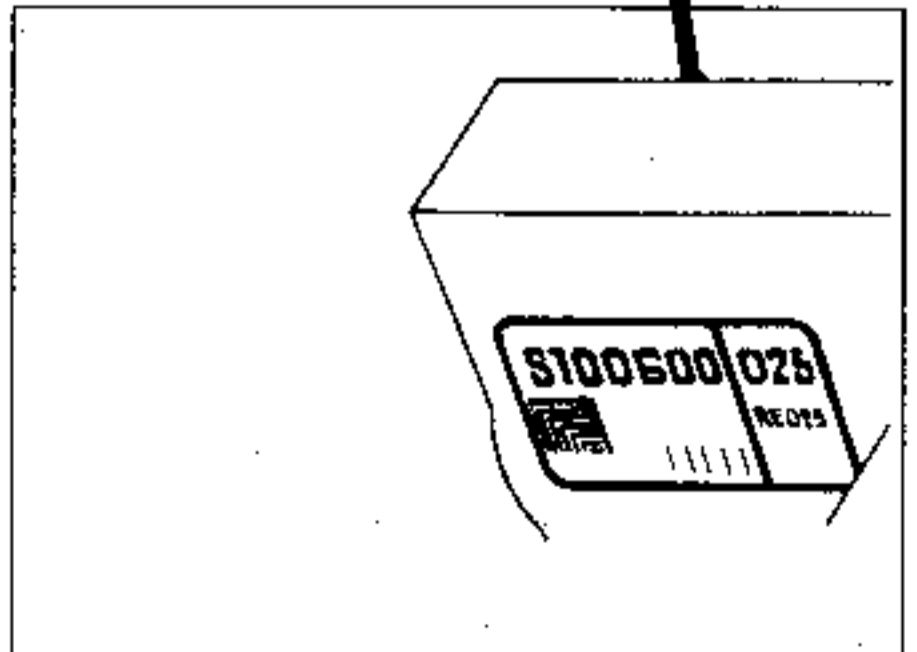
The advance curves are identified by a label stuck to the body of the AEI module.

Example: advance curves RE 001



86 005

Example: advance curves RE 025



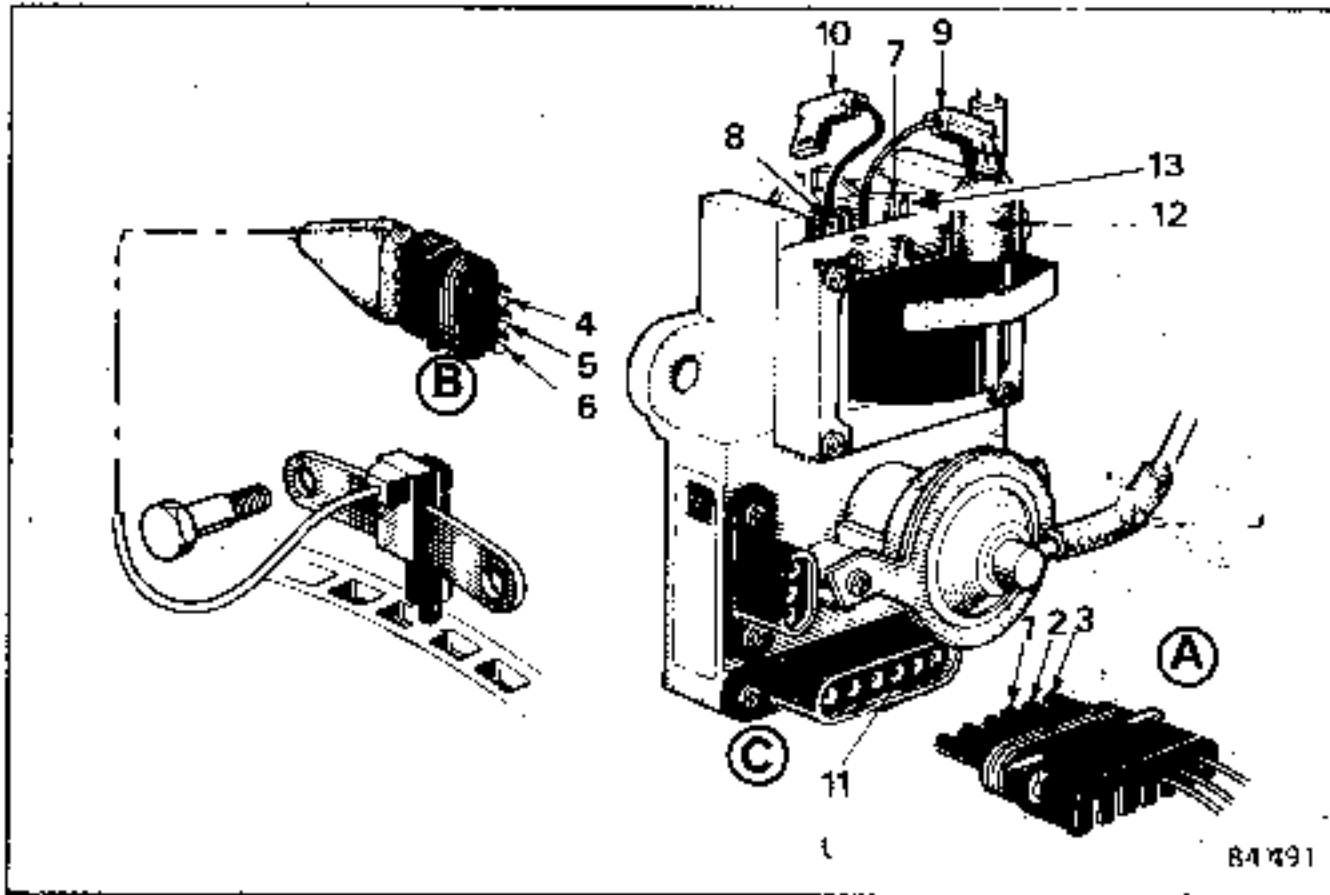
# IGNITION

## Integral Electronic Ignition

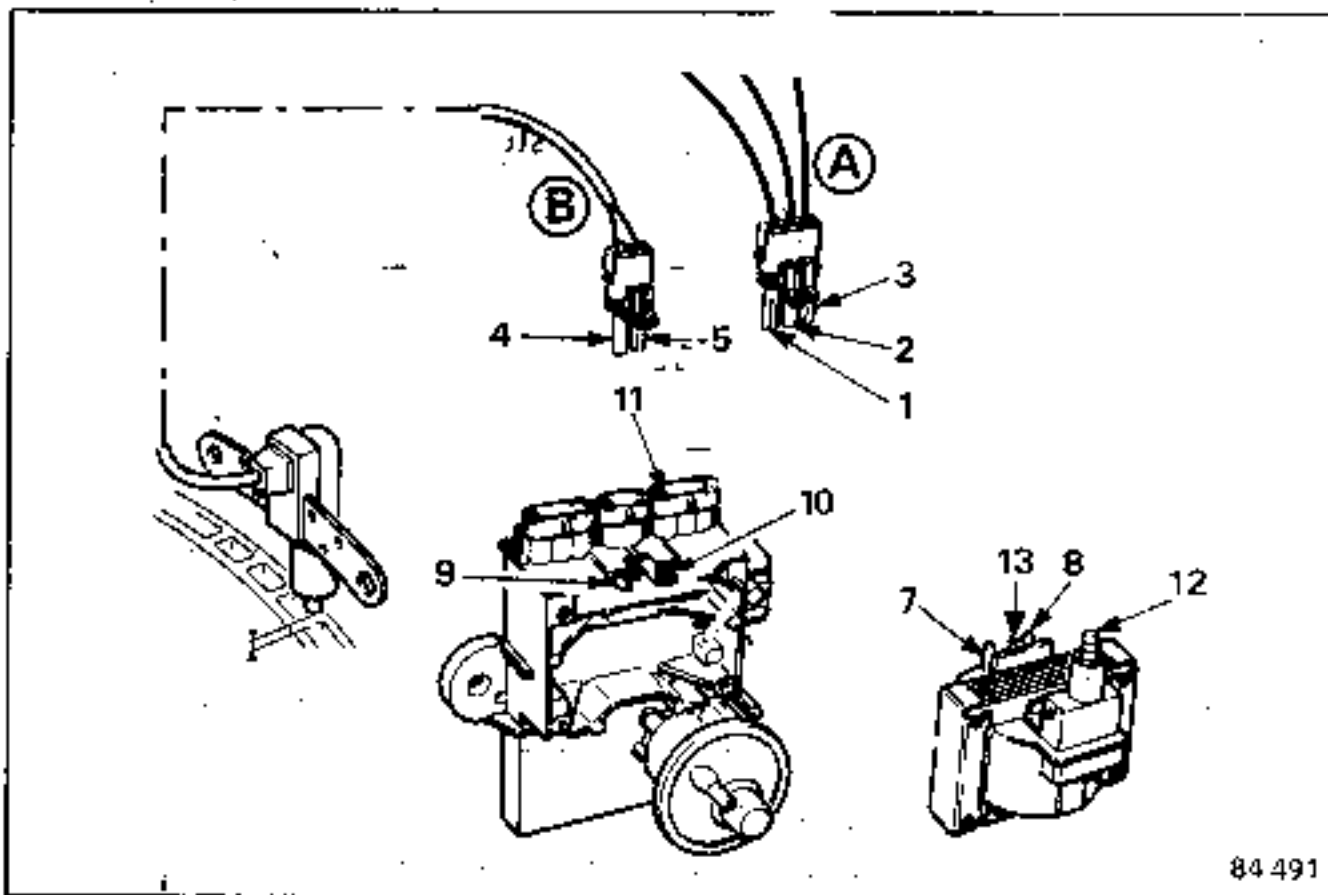
17

### DESCRIPTION OF CONNECTIONS

AEI Module type D or E



AEI Module-type F or ZD



- |  |  |
|--|--|
| <p>1 Positive feed<br/>                 2 Earth<br/>                 3 Rev. counter data<br/>                 4 Sensor winding<br/>                 5 Sensor winding<br/>                 6 Sensor screening (for AEI modules D and E)</p> | <p>7 Terminal + coil<br/>                 8 Terminal + coil<br/>                 9 Contact + coil<br/>                 10 Contact - coil<br/>                 11 Input + module<br/>                 12 AEI secondary HT connection<br/>                 13 Terminal + coil for radio interference condenser</p> |
|--|--|

**NOTE:** Terminals 9 and 11 are directly connected inside the AEI module.

# IGNITION

## Integral Electronic Ignition

17

### FAULT-FINDING

NO IGNITION

Check visually:

- spark plugs;
- spark plug leads;
- distributor cap;
- coil HT lead

Check condition of the contact points on connectors (A) and (B): Disconnect and reconnect these connectors several times

Clean the terminals if necessary - before replacing any components .

### PRELIMINARY CHECK

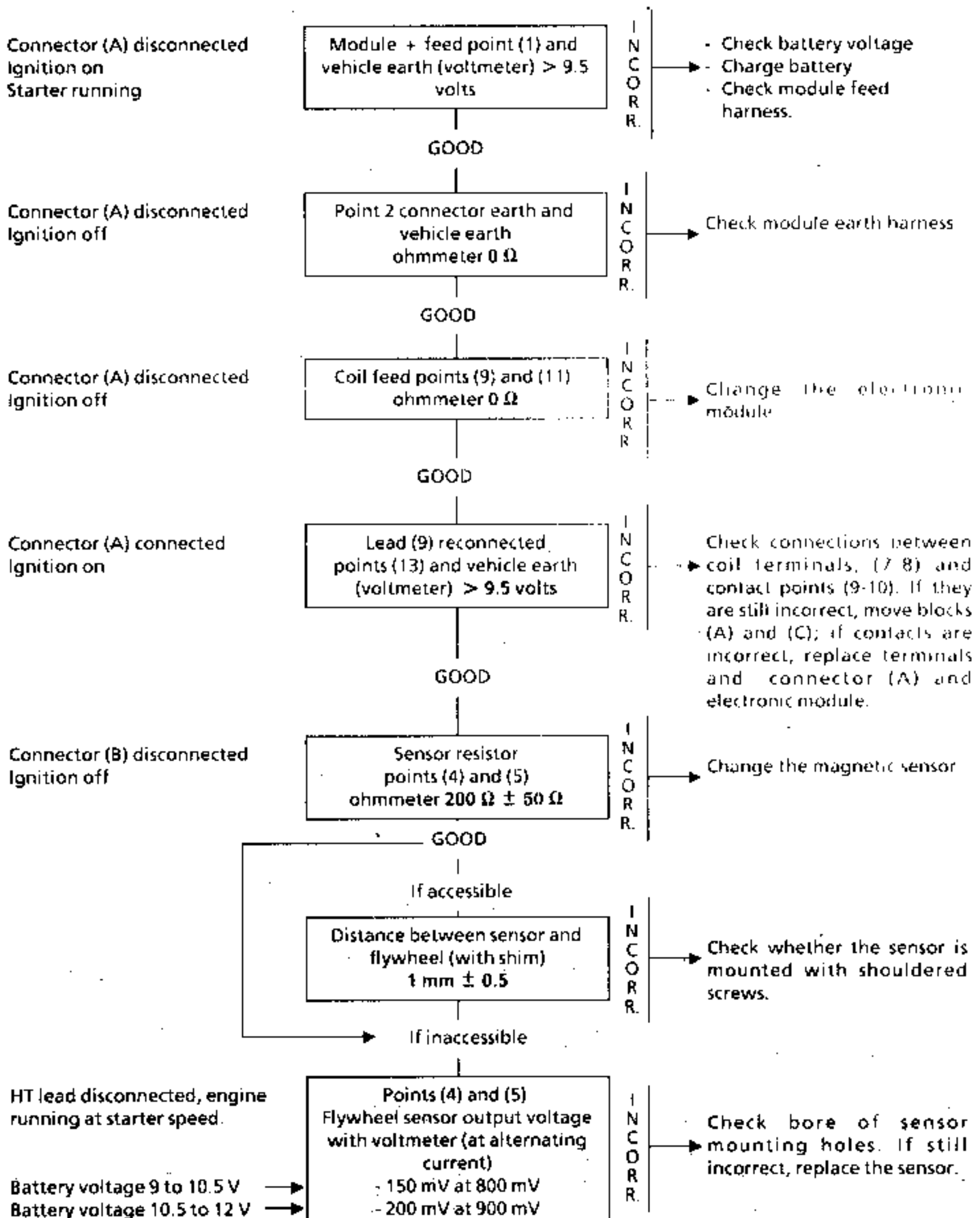
Between point 13 (+ coil feed to radio interference condenser output) and earth (ignition on) that the voltage is greater than 9.5 volts

### FAULT-FINDING (continued) AEI module D or E

**TEST CONDITIONS**

**TESTS**

**FAULT-FINDING**



# IGNITION

## Integral Electronic Ignition

17

### FAULT-FINDING (continued) AEI module D or E

**TEST CONDITIONS**

**TEST**

**FAULT-FINDING**

2 identical sensors opposite each other

Sensor polarity  
(they should not attract one another)

I  
N  
C  
O  
R  
R

Replace the magnetic sensor

GOOD

Block connectors (A) and (B) connected:

Fit a test bulb (2 W max.)  
between (9) and (10) At starter  
speed, this should flash.

I  
N  
C  
O  
R  
R

Change the electronic module

GOOD

HT lead disconnected  
Leads (9) and (10) disconnected  
Ignition off

HT coil secondary resistor  
points (7) and (12)  
ohmmeter 2000 to 12000  $\Omega$

I  
N  
C  
O  
R  
R

Change the HT coil

GOOD

Leads (9) and (10) disconnected  
Ignition off

HT coil primary resistor  
points (7) and (8)  
ohmmeter 0.4 to 0.8  $\Omega$

I  
N  
C  
O  
R  
R

GOOD

Connector (A) disconnected  
Ignition off

Rev. counter insulation  
points (2) and (3)  
ohmmeter 20 k $\Omega$

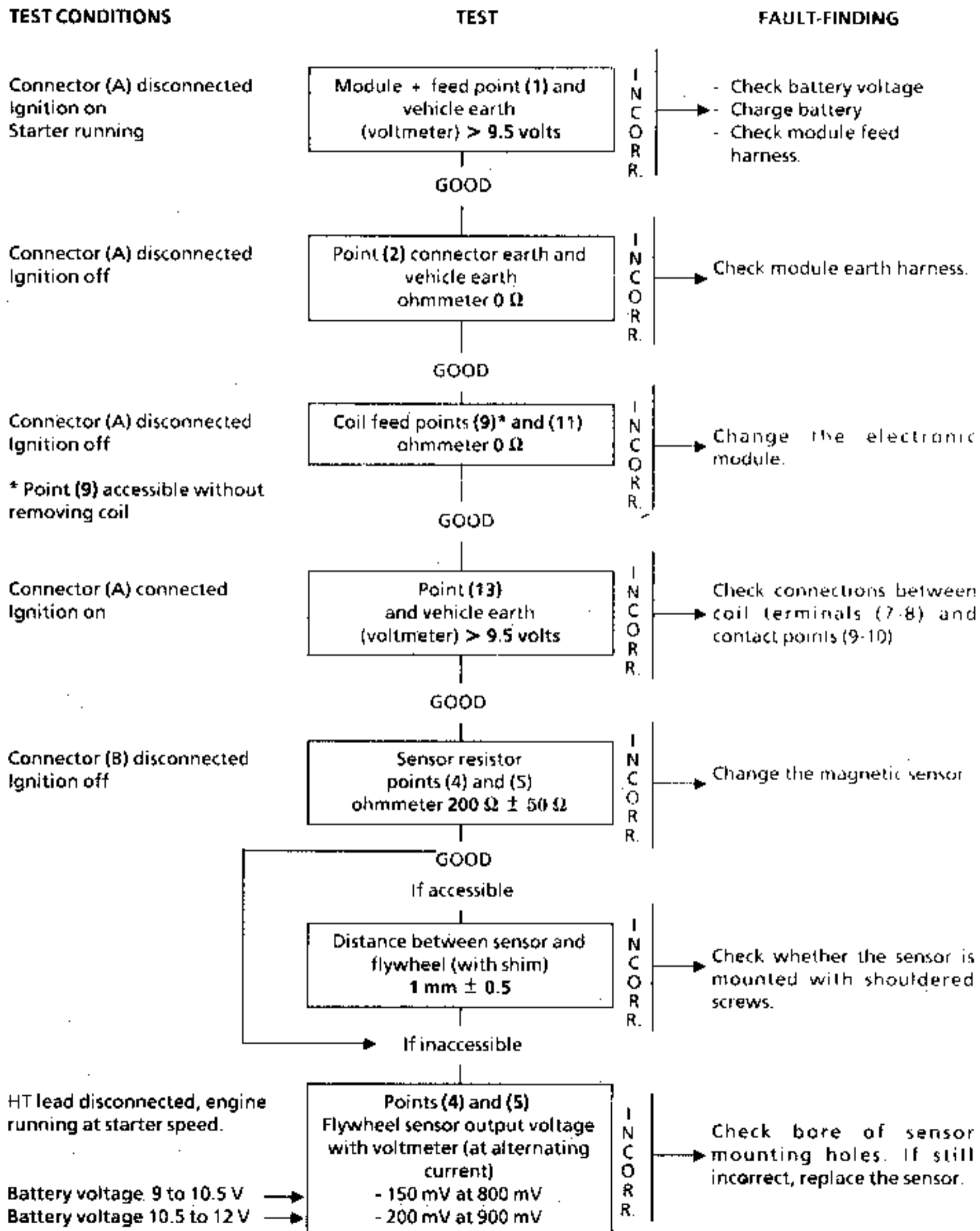
I  
N  
C  
O  
R  
R

Repair harness or rev. counter

GOOD

No high tension: change electronic module

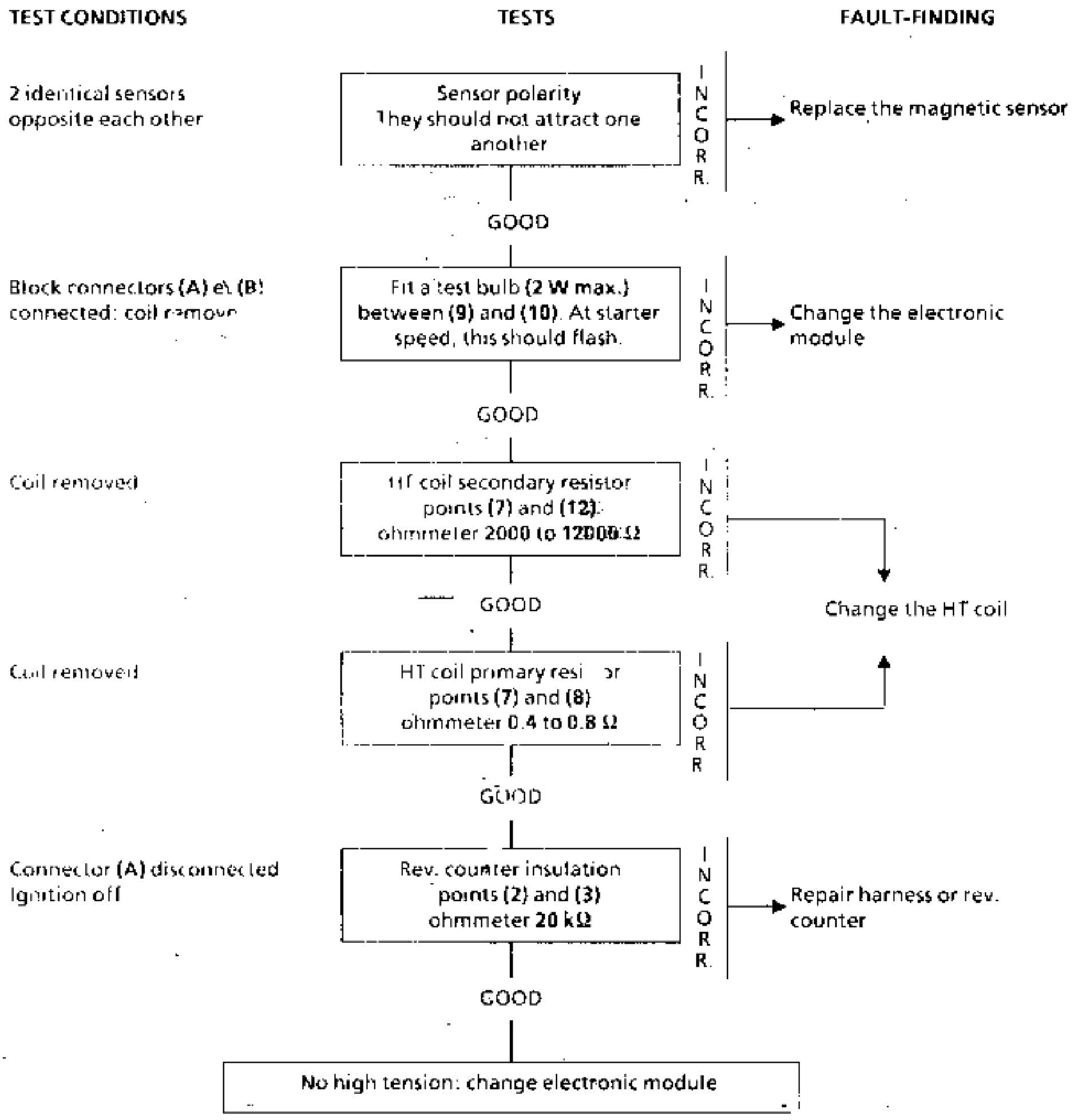
### FAULT-FINDING (continued) AEt Module F or ZD



# IGNITION

## Integral Electronic Ignition

### FAULT-FINDING (continued) AEI Module F or ZD





# IGNITION

## Integral Electronic Ignition

FAULT-FINDING (continued) - ALL TYPES OF MODULES:

**DIFFICULT TO START BUT NO INCIDENTS WHEN ENGINE RUNNING**

**Check visually or with test apparatus:**

- spark plugs
- spark plug leads
- distributor cap
- coil HT lead.

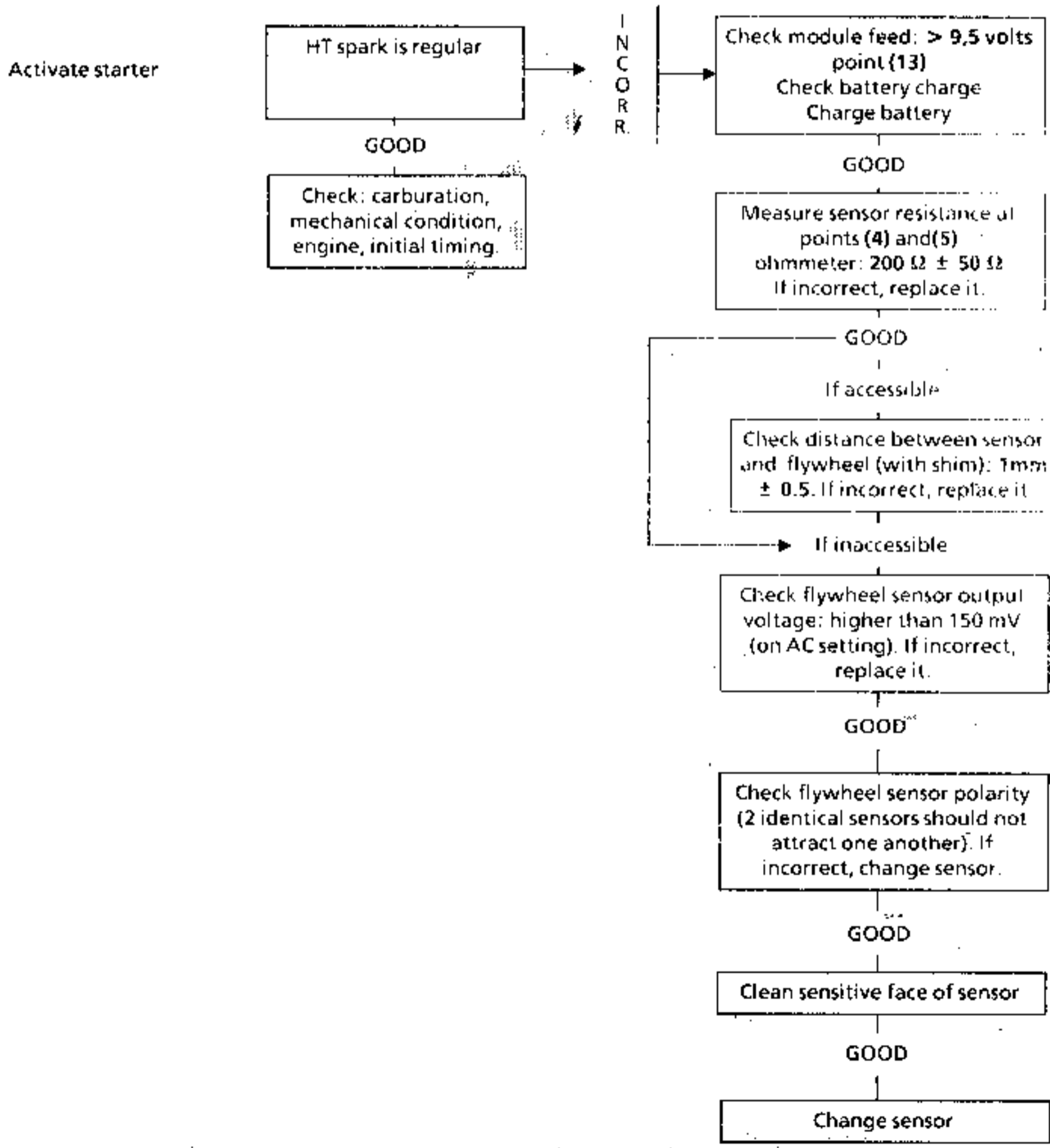
**Check HT at starter speed:**

- disconnect HT lead at distributor cap end;
- place the lead 2 cm away from the engine block.

**NOTE: DO NOT ALLOW THE HT LEAD TO TOUCH THE ELECTRONIC MODULE**

**TEST**

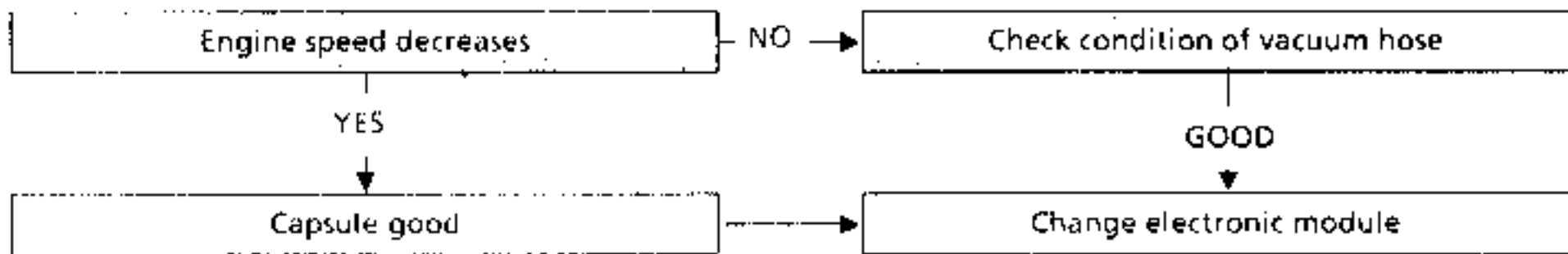
**FAULT-FINDING**



### FAULT-FINDING (continued)

#### CHECK MECHANICAL CONDITION OF VACUUM CAPSULE

- Let the engine run steadily at 300 rpm.
- Disconnect the vacuum hose from the capsule.



# IGNITION

## Integral Electronic Ignition

### ALLOCATION OF THE INTEGRAL ELECTRONIC IGNITION MODULES

#### RENAULT 5

Vehicle	Engine	Advance Curve	Unit Type
1229 - 1249	C2J 713	RE 031	D
122B	C6J 750	RE 036	D
122B Suisse	C6J 728	RE 046	D
122B	840 26	RE 009	D

#### RENAULT SUPER 5 - EXTRA

Vehicle	Engine	Advance Curve	Unit Type
B/C/F 402	C1J 768	RE 204	F
B/C/F 402 Germany Austria	C1J 768	RE 211	F
B/C/F 402 DAI	C1J 780	RE 204	F
B/C/F 402	C1J 780	RE 211	F
B/C 403	C2J 780	RE 025	F - ZD
B/C 403	C2J 798	RE 450	F
B/C 403 TA	C2J 781 / C2J 789	RE 226	F - ZD
C 403 Sweden Switzerland	C2J 788	RE 217	F - ZD
B/C 403 Sweden Switzerland	C2J 789	RE 226	F
C 403	C2J 782 / C2J 784	RE 257	F - ZD
C 403	C2J 700	RE 254	F - ZD
C 405	C1J 782	RE 208 / RE 209	F
C 405 Switzerland	C1J 784	RE 229	F
C 405	C1J 788	RE 209	F
B/C 407	C3J 700	RE 028	D
X 40 F	C1G 720	RE 450	F - ZD
X 40 F Spain	C1G 702	RE 450	F - ZD
S 40 F	C1G 722	RE 306	F - ZD
B/C 40 G	F2N 740	RE 232	F - ZD
B/C 40 J	C2J 782	RE 257	F - ZD
B/C 40 J	C2J 789	RE 026	F
B/C 40 K	F2N 742	RE 259	F - ZD
B/C/F 40 M	C2J 784	RE 257	F - ZD

# IGNITION

## Integral Electronic Ignition

**17**

### ALLOCATION OF THE INTEGRAL ELECTRONIC IGNITION MODULES (continued)

#### RENAULT CLIO

Vehicle	Engine	Advance Curve	Unit Type
X 572	E5F 710	RE 292	F - ZD
B/C 573	E6J 712	RE 252	F - ZD
B/C 573 TA	E6J 713	RE 267	F - ZD
B/C 574	F2N 770	RE 293	F - ZD
B 57 N	E5F 716	RE 292	F - ZD
B 57 P	E6J 718	RE 252	F - ZD

# IGNITION

## Integral Electronic Ignition

### ALLOCATION OF THE INTEGRAL ELECTRONIC IGNITION MODULES (continued)

#### RENAULT 9/11

Vehicle	Engine	Advance Curve	Unit Type
L 422 B/C 372	C1J 715	RE 007 / RE 207	D - E - F
L 423 B/C 373 Germany Saudi Arabia	C2J 768	RE 240	F
L 423 B/C/S 373	C2J 768	RE 254	F
L 423 B/C 373 TA	C2J 718	RE 026	D - E - F
L 423 B/C 373 DAI Saudi Arabia	C2J 718	RE 019 RE 240 RE 226	D - F F F
L 423 B/C 373	C2J 717	RE 025	D - E
L 423 B/C 373 DAI	C2J 717	RE 008 RE 042 RE 240	D D F
L 423 Germany, Netherlands, Belgium	C2J 720 / C2J 730	RE 257	F
L 423 B/C 373 Switzerland	C2J 756 / C2J 757	RE 024	D - F
L 423 B/C 373	C2J 794	RE 450	F
L 423 B/C 373 Germany, Switzerland	C2J 766	RE 217	E - F
L 423 B/C 373 TA Switzerland	C2J 767	RE 026	E - F
L 425 B/C 375	C1J 760	RE 037	D - F
L 425 B/C 375	C1J 770	RE 208	F
L 425 B/C 375 Switzerland	C1J 764	RE 206	F
L 426 B/C 376	F2N 700	RE 227 RE 256	E F
L 426 B/C 376 Switzerland	F2N 704	RE 249	E - F
L 42 C B/C 37C	C2J 730	RE 257	F
L 42 D B/C 37 D	F2N 732	RE 259	F
L 42 L B/C 37 L	F2N 730	RE 234	F
L 42 N B/C 37 N	F2N 708	RE 232	F
L 42 S B/C/S 37 S	C1G 710	RE 450	F
L 42 R B/C 37 R	C2J 720	RE 257	F

# IGNITION

## Integral Electronic Ignition

17

### ALLOCATION OF THE INTEGRAL ELECTRONIC IGNITION MODULES (continued)

#### RENAULT 18 - RENAULT FUEGO

Vehicle	Engine	Advance Curve	Unit Type
1340 - 1350 - 1360 - 2350	847 20	RE 030	D
1341 - 1351 - 1361	A2M 723	RE 015	D
1341 - 1351 DAI	A2M 795	RE 014	D - F
1341 - 1351	A2M 795 / A2M 796	RE 045	D - F
1341 - 1351 Spain	A2M 795	RE 013	D
1342 - 1352 - 1362	A6M 725 / A6M 726	RE 010	D
1343 - 1353 - 1363	829 10 / J6R 711 / J6R 716	RE 001	D - E
1343 - 1353 - 1363 Switzerland	J6R 714 / J6R 715	RE 020 / RE 220	D - E
1345	807 27	RE 016	D
1345 - 1355	A5L 717 / A5L 718	RE 023	D - F
1365	A5L 750	RE 033	D
134A - 135A - 136A	A7L 752	RE 022	D
134B - 135B - 136B	J7T 718 / J7T 719	RE 239	F

#### RENAULT 19

Vehicle	Engine	Advance Curve	Unit Type
X 530	C1G 730	RE 450 / RE 306	F - ZD
L/B/C 533	F2N 720	RE 261	F - ZD
L/B 536	F2N 724	RE 234	F - ZD
X 537	E6J 700	RE 252	F - ZD
X 537 TA	E6J 701	RE 267	F - ZD
L/B/C 53 E	F2N 728	RE 275	F - ZD
L/B 53 H	C2J 776	RE 257	F - ZD
L/B/C 53 M	F2N 722	RE 272	F - ZD
L/B/C 53 P	C2J 772	RE 257	F - ZD

# IGNITION

## Integral Electronic Ignition

17

### ALLOCATION OF THE INTEGRAL ELECTRONIC IGNITION MODULES (continued)

#### RENAULT 20

Vehicle	Engine	Advance Curve	Unit Type
1277	829 702 / 829 703	RE 001	D
1279	851 700 / 851 701	RE 001	D
1277 Switzerland	J6R 704 / J6R 705	RE 020	D
1277 DAI	J6R 708 / J6R 709	RE 001	D

#### RENAULT 21

Vehicle	Engine	Advance Curve	Unit Type
L 481 - K 481 - S 481 - B 481 - L 481 - B 481 DAI	F2N 712 / F2N 716	RE 234	F - ZD sensor offset by +4° for Finland
L 482 - K 482 - S 482	F2N 710	RE 232	F
L 482 - K 482 - S 482 - B 482	F2N 754	RE 282	F - ZD
L 48 M - K 48 M	F2N 750	RE 258	F - ZD
L 48 N - K 48 N	F2N 752	RE 259	F
L 48 J - K 48 J - B 48 J	F2R 702	RE 232	F - ZD
L 489 DAI	J6R 758 / J6R 759	RE 001	F
L 48 D - B 48 D	C2J 7.0	RE 278 / RE 308	F - ZD
L 484 - B 484 - K 484	F2N 758	RE 282	F - ZD

#### RENAULT 25

Vehicle	Engine	Advance Curve	Unit Type
B 297 Switzerland	J6R 760	RE 020 / RE 220	D - F
B 297	J6R 706 / J6R 707	RE 243 / RE 276	E - F - ZD
B 297 DAI	J6R 762 / J6R 763	RE 201 / RE 001	F - ZD
B 29 B	J7T 708	RE 239	F
B 297	J6R 706	RE 291	F - ZD

# IGNITION

## Integral Electronic Ignition

### ALLOCATION OF THE INTEGRAL ELECTRONIC IGNITION MODULES (continued)

#### RENAULT ESPACE

Vehicle	Engine	Advance Curve	Unit Type
J112 S112	J6R 234	RE 001 / RE 201	D - E - F
	J6R 234 / J6R 236	RE 020 / RE 220	D - E - F
	J6R 734	RE 243 / RE 001	F - ZD

#### RENAULT TRAFIC MASTER

Vehicle	Engine	Advance Curve	Unit Type
PXXB PXXB	F1N 720	RE 235	F - ZD with engine speed limited to 5500 rpm.
QXX2 RXX2 LXX2 PXX2 VXX2	J5R	RE 250	F - ZD
PXYB D41	F1N 722	RE 235	F sensor offset by - 4° and speed limited to 5500 rpm.
LXXB	F1N 724	RE 260	ZD



# IGNITION

## Integral Electronic Ignition

17

Checking the curve using a diagnostic bay or tool M.S. 760 or an RX3 and a vacuum pump.  
The given test speeds on the vehicle have a tolerance of  $\pm 100$  rpm.

### 1) Normally aspirated engine

Curve	Vacuum capsule disconnected						Vacuum check
	Idling speed in rpm	Advance in degrees	Idling speed in rpm	Advance in degrees	Idling speed in rpm.	Advance in degrees	Vary the vacuum pressure between 0 and 300 mbar, keeping the engine speed at: <b>4550 <math>\pm</math> 100 rpm.</b> The advance should vary by more than:
RE 001	850	8 to 12	1 550	10 to 15	4 050	26 to 30	7
RE 007	650	2 to 5	1 550	2 to 7	4 050	20 to 26	4
RE 008	750	0 to 4	1 550	6 to 11	4 050	24 to 29	7
RE 010	850	9 to 13	1 550	12 to 16	4 050	24 to 29	11
RE 013	950	0 to 5	1 550	10 to 15	4 050	24 to 30	6
RE 014	950	0 to 5	1 550	4 to 10	4 050	24 to 30	6
RE 015	650	6 to 10	1 550	9 to 14	4 050	19 to 25	5
RE 019	650	5 to 8	1 550	9 to 12	4 050	22 to 26	10
RE 020	850	6 to 9	1 550	9 to 12	4 050	22 to 29	4
RE 024	750	5 to 9	1 550	5 to 9	4 050	19 to 24	8
RE 025	750	7 to 9	1 750	15 to 23	4 050	24 to 30	7
RE 026	650	5 to 8	1 550	12 to 18	4 050	22 to 27	10
RE 028	750	5 to 11	1 550	8 to 14	4 050	20 to 26	10
RE 030	750	9 to 12	1 550	8 to 13	4 050	24 to 28	8
RE 031	650	9 to 12	1 550	14 to 18	4 050	27 to 32	9
RE 042	750	7 to 9	1 550	4 to 7	4 050	21 to 29	7
RE 045	750	7 to 10	1 550	3 to 8	4 050	16 to 24	5
RE 201	850	9 to 11	1 550	12 to 14	4 050	27 to 30	7
RE 204	650	9 to 11	1 550	13 to 15	4 050	26 to 29	10
RE 207	650	2 to 4	1 550	4 to 6	4 050	21 to 26	4
RE 211	650	3 to 11	1 550	5 to 7	4 050	20 to 23	12
RE 217	750	0 to 2	1 550	12 to 14	4 050	25 to 30	8
RE 220	850	7 to 9	1 550	10 to 12	4 050	23 to 28	4
RE 225	750	7 to 9	1 550	12 to 14	4 050	26 to 30	8
RE 226	650	5 to 7	1 550	11 to 18	4 050	22 to 26	10
RE 227	650	3 to 7	1 550	3 to 9	4 050	25 to 29	12
RE 232	750	5 to 9	1 550	8 to 12	4 050	26 to 29	8

# IGNITION

## Integral Electronic Ignition

### 1) Normally aspirated engine (continued)

Curve	Vacuum capsule disconnected						Vacuum check
	Idling speed in rpm	Advance in degrees	Idling speed in rpm	Advance in degrees	Idling speed in rpm	Advance in degrees	Vary the vacuum pressure between 0 and 300 mbar, keeping the engine speed at: <b>4550 ± 100 rpm.</b> the advance should vary by more than:
RE 234	750	3 to 5	1 550	7 to 9	4 050	24 to 27	15
RE 235	750	0 to 2	1 550	1 to 3	4 050	21 to 25	11
RE 239	750	10 to 12	1 550	10 to 13	4 050	18 to 21	10
RE 240	650	5 to 8	1 550	0 to 3	4 050	22 to 24	14
RE 243	850	9 to 12	1 550	13 to 16	4 050	28 to 31	6
RL 249	650	7 to 9	1 550	5 to 9	4 050	25 to 28	13
RF 250	750	10 to 12	1 550	10 to 13	4 050	37 to 40	6
RE 252	750	13 to 18	1 550	8 to 13	4 050	24 to 28	6
RE 254	650	7 to 9	1 550	9 to 12	4 050	28 to 30	10
RI 256	650	5 to 7	1 550	1 to 5	4 050	22 to 26	12
RF 257	750	7 to 9	1 550	0 to 4	4 050	21 to 23	10
RI 258	750	0 to 1	1 550	1 to 3	4 050	15 to 23	10
RE 259*	750	7 to 9	1 550	3 to 9	4 050	23 to 27	8
RE 260	750	0 to 1	1 550	5 to 8	4 050	25 to 29	8
RE 261*	750	0 to 9	1 550	4 to 10	4 050	18 to 23	6
RE 267**	750	13 to 18	1 550	8 to 13	4 050	24 to 28	10
RE 272*	750	0 to 9	1 550	7 to 10	4 050	21 to 24	6
RE 275*	750	0 to 1	1 550	1 to 3	4 050	15 to 23	16
RE 276	750	9 to 15	1 550	10 to 13	4 050	24 to 26	8
RE 278	750	7 to 9	1 550	9 to 13	4 050	28 to 32	5
RE 282*	750	0 to 9	1 550	4 to 10	4 050	18 to 23	6
RE 287	750	13 to 18	1 550	8 to 13	4 050	24 to 28	8
RE 291	750	9 to 5	1 550	10 to 13	4 050	26 to 29	9
RE 292	750	5 to 10	1 550	6 to 11	4 050	23 to 27	14
RE 293	750	0 to 4	1 550	7 to 12	4 050	23 to 28	10
RE 306	750	4 to 8	1 550	11 to 17	4 050	25 to 31	12
RE 308	750	8 to 12	1 550	7 to 9	4 050	24 to 28	12
RE 450	750	5 to 7	1 550	11 to 17	4 050	26 to 30	14

\* Water temperature above 70 °C, advance connectors disconnected

\*\* Choke pushed in, advance connectors disconnected

# IGNITION

## Integral Electronic Ignition

17

### 2) Turbocharged engine

Curve	Vacuum capsule disconnected		Pressure on capsule + 0.2 1                  bar 0				Vacuum check
							Vary the vacuum pressure between 0 and 300 mbar, keeping the engine speed at: <b>4550 ± 100 rpm</b> . The advance should vary by more than:
RE 009	650	9 to 13	1 550	18 to 22	4 050	14 to 18	10
RE 016	650	8 to 15	1 550	0 to 4	4 050	15 to 23	15
RE 022	650	8 to 15	1 550	8 to 12	4 050	14 to 19	4
RE 023**	650	8 to 15	1 550	0 to 2	4 050	13 to 19	7
RE 033	650	10 to 16	1 550	21 to 26	4 050	16 to 23	6
RE 036	650	6 to 13	1 550	6 to 11	4 050	11 to 17	8
RE 037 **	650	6 to 10	1 550	4 to 8	4 050	17 to 23	5
RE 046	650	6 to 13	1 550	5 to 9	4 050	9 to 14	6
RE 206	650	6 to 10	1 550	0 to 4	4 050	23 to 27	3
RE 208	650	6 to 10	1 550	4 to 8	4 050	21 to 25	6
RE 209	650	6 to 10	1 550	4 to 8	4 050	21 to 25	6
RE 229	650	6 to 10	1 550	0 to 4	4 050	20 to 24	0

\*\* Test point only valid for type D units.

# IGNITION

## Integral Electronic Ignition

17

### 3) Specific curves

The following curves must be checked in conjunction with the RENIX reference. If there is a failure with a unit, it must be replaced by one with the same RENIX reference since these units are not interchangeable.

Curve	Vacuum capsule disconnected						Vacuum check
	Idling speed in rpm	Advance in degrees	Idling speed in rpm	Advance in degrees	Idling speed in rpm	Advance in degrees	Vary the vacuum pressure between 0 and 300 mbar, keeping the engine speed at: <b>4550 ± 100 rpm.</b> the advance should vary by more than:
RE 232* <small>RENIX REF 900 232</small>	750	5 to 9	1 550	8 to 12	4 050	26 to 29	8
RE 232* <small>RENIX REF 900 232</small>	850	5 to 11	1 550	8 to 12	4 050	27 to 30	8
RE 232* <small>RENIX REF 900 232 RENIX REF 900 232</small>	850	5 to 11	1 550	4 to 8	4 050	23 to 26	8
RE 234* <small>RENIX REF 900 234</small>	750	3 to 5	1 550	7 to 9	4 050	24 to 27	15
RE 234* <small>RENIX REF 900 234</small>	750	0 to 5	1 550	4 to 9	4 050	21 to 27	15
RE 234* <small>RENIX REF 900 234</small>	750	0 to 5	1 550	0 to 4	4 050	17 to 19	15

\* The advance correction take off must be disconnected.