



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

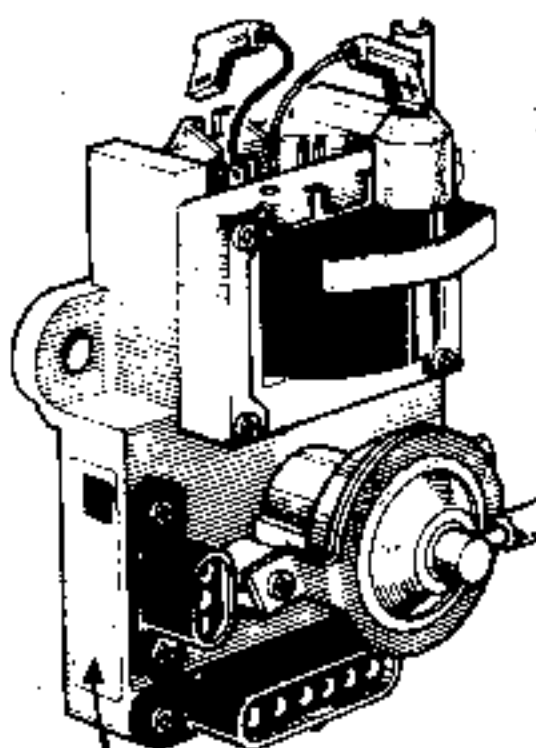
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CHECKING THE AEI MODULE

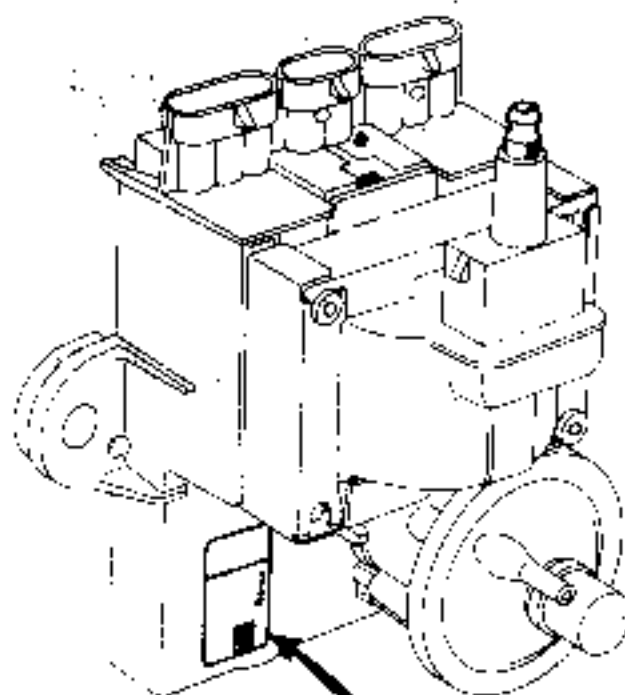
IDENTIFICATION OF AEI MODULES AND ADVANCE CURVES

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



Renix

S 100001-001

RE 001

0109

86 005

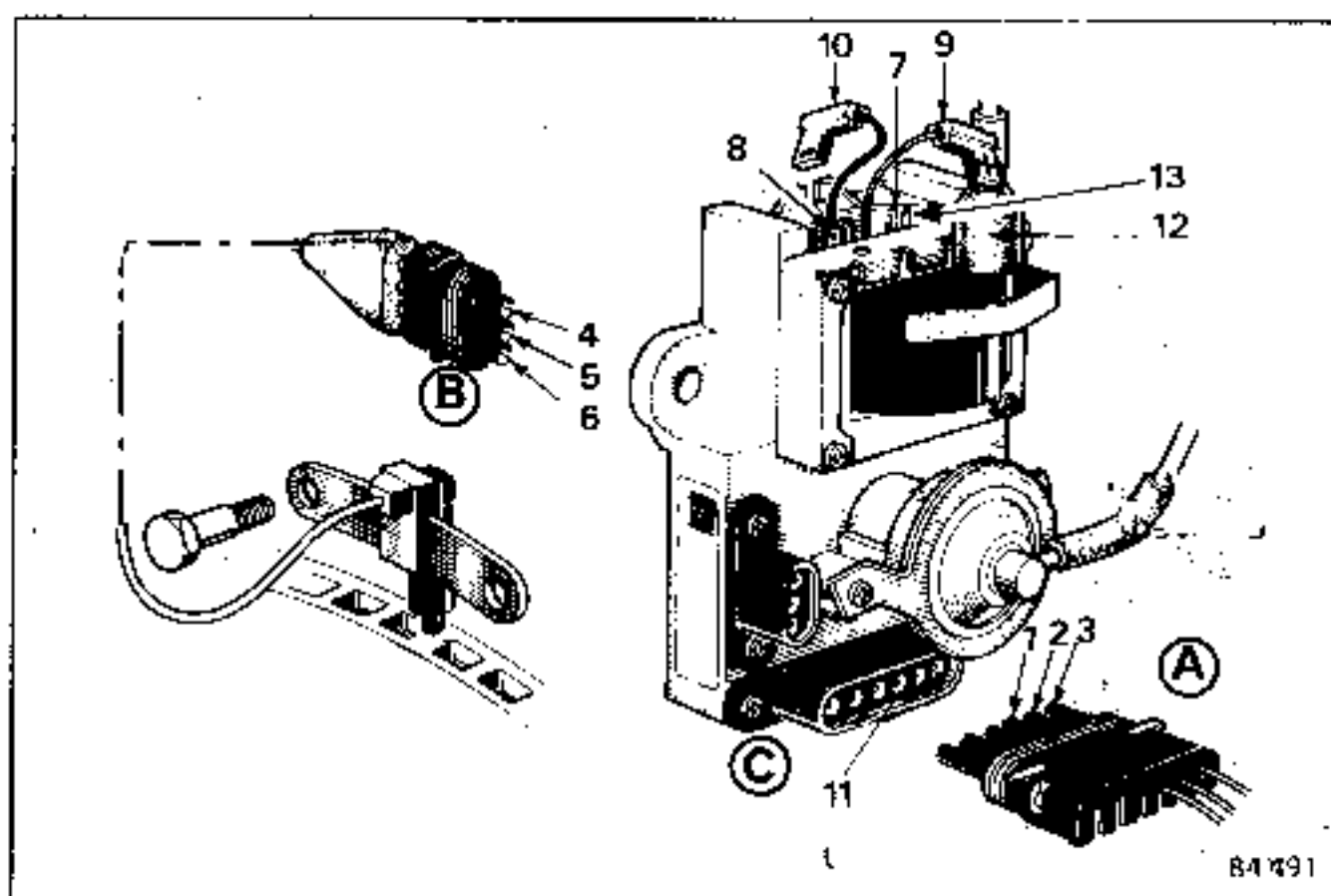
Example: advance curves RE 025

S100500 025

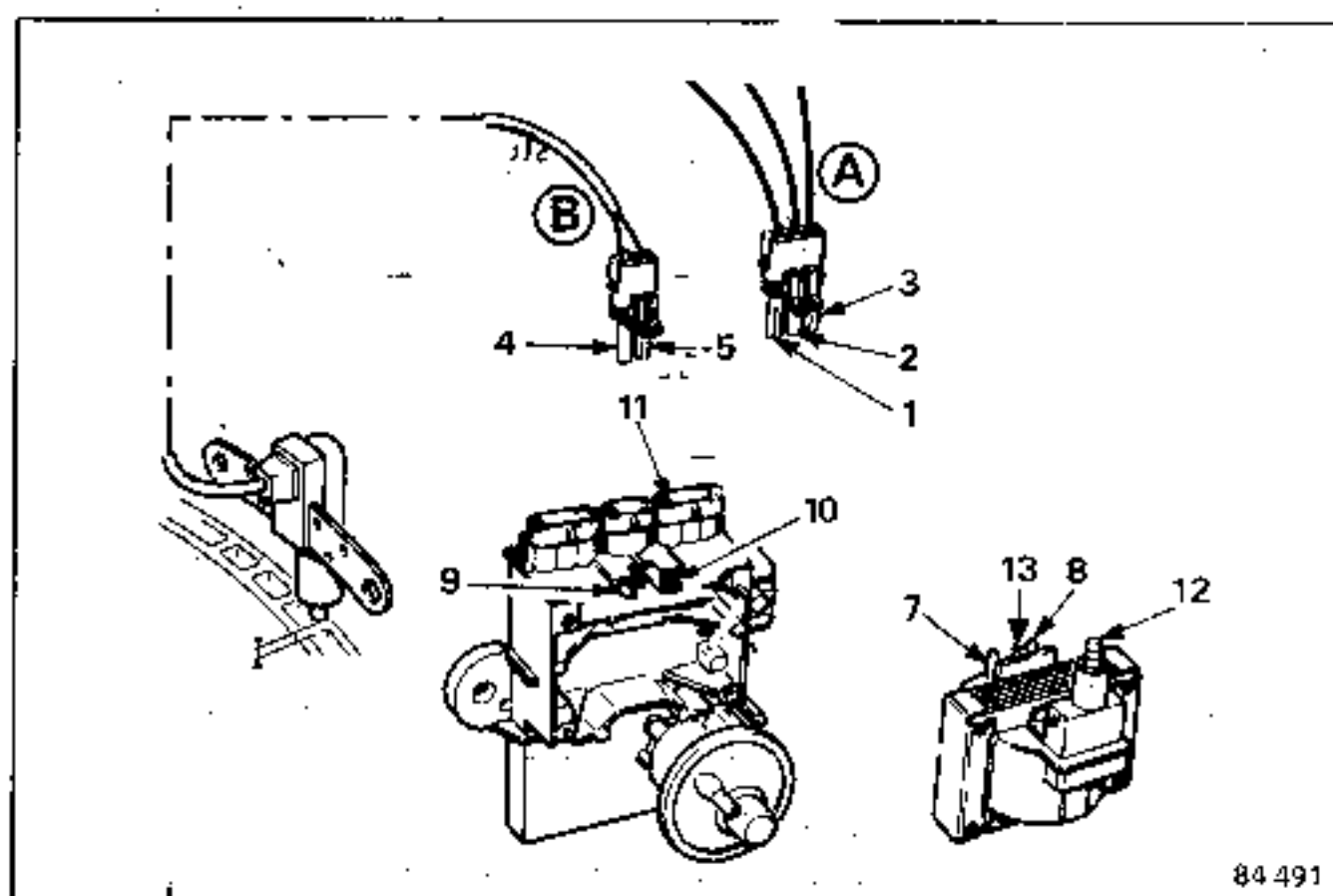
RE025

DESCRIPTION OF CONNECTIONS

AEI Module type D or E



AEI Module-type F or ZD



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

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

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

Connector (A) disconnected
Ignition on
Starter running

Module + feed point (1) and
vehicle earth (voltmeter) > 9.5
volts

I
N
C
O
R
R.

- Check battery voltage
- Charge battery
- Check module feed harness.

GOOD

Connector (A) disconnected
Ignition off

Point 2 connector earth and
vehicle earth
ohmmeter 0Ω

I
N
C
O
R
R.

Check module earth harness

GOOD

Connector (A) disconnected
Ignition off

Coil feed points (9) and (11)
ohmmeter 0Ω

I
N
C
O
R
R.

Change the electronic module

GOOD

Connector (A) connected
Ignition on

Lead (9) reconnected,
points (13) and vehicle earth
(voltmeter) > 9.5 volts

I
N
C
O
R
R.

Check connections between coil terminals, (7-8) and contact points (9-10). If they are still incorrect, move blocks (A) and (C); if contacts are incorrect, replace terminals and connector (A) and electronic module.

GOOD

Connector (B) disconnected
Ignition off

Sensor resistor
points (4) and (5)
ohmmeter $200 \Omega \pm 50 \Omega$

I
N
C
O
R
R.

Change the magnetic sensor

GOOD

If accessible

Distance between sensor and
flywheel (with shim)
 $1 \text{ mm} \pm 0.5$

I
N
C
O
R
R.

Check whether the sensor is mounted with shouldered screws.

If inaccessible

HT lead disconnected, engine
running at starter speed.

Points (4) and (5)
Flywheel sensor output voltage
with voltmeter (at alternating
current)
- 150 mV at 800 mV
- 200 mV at 900 mV

I
N
C
O
R
R.

Check bore of sensor mounting holes. If still incorrect, replace the sensor.

Battery voltage 9 to 10.5 V →
Battery voltage 10.5 to 12 V →

IGNITION

Integral Electronic Ignition

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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 Ω

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 Ω

I
N
C
O
R
R

GOOD

Connector (A) disconnected
Ignition off

Rev. counter insulation
points (2) and (3)
ohmmeter 20 k Ω

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

TEST CONDITIONS

TEST

FAULT-FINDING

Connector (A) disconnected
Ignition on
Starter running

Module + feed point (1) and
vehicle earth
(voltmeter) > 9.5 volts

I
N
C
O
R
R.

- Check battery voltage
- Charge battery
- Check module feed harness.

GOOD

Connector (A) disconnected
Ignition off

Point (2) connector earth and
vehicle earth
ohmmeter 0Ω

I
N
C
O
R
R.

Check module earth harness.

GOOD

Connector (A) disconnected
Ignition off

Coil feed points (9)* and (11)
ohmmeter 0Ω

I
N
C
O
R
R.

Change the electronic module.

* Point (9) accessible without
removing coil

GOOD

Connector (A) connected
Ignition on

Point (13)
and vehicle earth
(voltmeter) > 9.5 volts

I
N
C
O
R
R.

Check connections between
coil terminals (7-8) and
contact points (9-10)

GOOD

Connector (B) disconnected
Ignition off

Sensor resistor
points (4) and (5)
ohmmeter $200 \Omega \pm 50 \Omega$

I
N
C
O
R
R.

Change the magnetic sensor

GOOD

If accessible

Distance between sensor and
flywheel (with shim)
 $1 \text{ mm} \pm 0.5$

I
N
C
O
R
R.

Check whether the sensor is
mounted with shouldered
screws.

If inaccessible

HT lead disconnected, engine
running at starter speed.

Points (4) and (5)
Flywheel sensor output voltage
with voltmeter (at alternating
current)

- 150 mV at 800 mV
- 200 mV at 900 mV

I
N
C
O
R
R.

Check bore of sensor
mounting holes. If still
incorrect, replace the sensor.

Battery voltage 9 to 10.5 V →
Battery voltage 10.5 to 12 V →

FAULT-FINDING (continued) AEI Module F or ZD

TEST CONDITIONS

TESTS

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; coil removed

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

Coil removed

HT coil secondary resistor
points (7) and (12):
ohmmeter 2000 to 12000 Ω

I
N
C
O
R
R.

Change the HT coil

GOOD

Coil removed

HT coil primary resistor
points (7) and (8)
ohmmeter 0.4 to 0.8 Ω

I
N
C
O
R
R.

GOOD

Connector (A) disconnected
Ignition off

Rev. counter insulation
points (2) and (3)
ohmmeter 20 k Ω

I
N
C
O
R
R.

Repair harness or rev.
counter

GOOD

No high tension: change electronic module

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

Activate starter

HT spark is regular

GOOD

Check: carburation,
mechanical condition,
engine, initial timing.

I
N
C
O
R
R.

FAULT-FINDING

Check module feed: > 9,5 volts
point (13)
Check battery charge
Charge battery

GOOD

Measure sensor resistance at
points (4) and (5)
ohmmeter: $200\ \Omega \pm 50\ \Omega$
If incorrect, replace it.

GOOD

If accessible

Check distance between sensor
and flywheel (with shim): $1\text{mm} \pm 0.5$. If incorrect, replace it.

If inaccessible

Check flywheel sensor output
voltage: higher than 150 mV
(on AC setting). If incorrect,
replace it.

GOOD

Check flywheel sensor polarity
(2 identical sensors should not
attract one another). If
incorrect, change sensor.

GOOD

Clean sensitive face of sensor

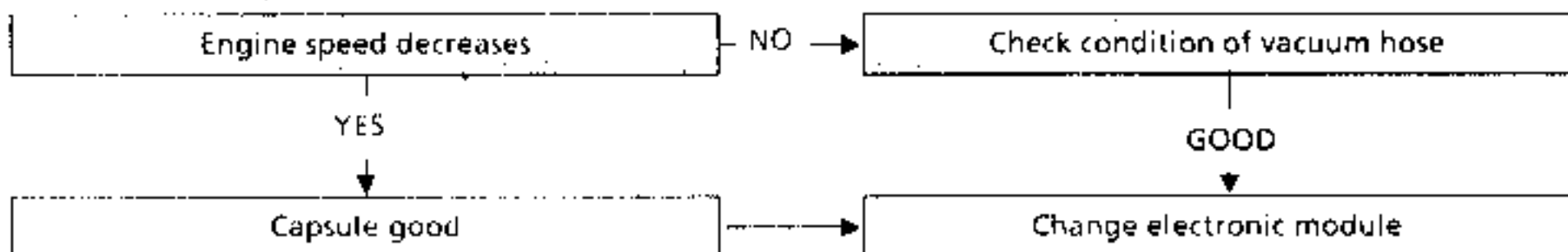
GOOD

Change sensor

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

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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

17

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

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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

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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 | E - ZD |

IGNITION

Integral Electronic Ignition

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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 DAI | 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

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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 ± 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: 4550 \pm 100 rpm. 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

17

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: 4550 ± 100 rpm. 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 |
| RE 249 | 650 | 7 to 9 | 1 550 | 5 to 9 | 4 050 | 25 to 28 | 13 |
| RE 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 |
| RE 256 | 650 | 5 to 7 | 1 550 | 1 to 5 | 4 050 | 22 to 26 | 12 |
| RE 257 | 750 | 7 to 9 | 1 550 | 0 to 4 | 4 050 | 21 to 23 | 10 |
| RE 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

2) Turbocharged engine

| | | | | | | | Vacuum check |
|-----------|-----------------------------|----------|---|----------|-------|----------|---|
| Curve | Vacuum capsule disconnected | | Pressure on capsule + 0.2 1 bar 0 | | | | Vary the vacuum pressure between 0 and 300 mbar, keeping the engine speed at: 4550 ± 100 rpm . 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.

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: 4550 ± 100 rpm. the advance should vary by more than: |
| RE 232* <small>RENIX REF 000 232</small> | 750 | 5 to 9 | 1 550 | 8 to 12 | 4 050 | 26 to 29 | 8 |
| RE 232* <small>RENIX REF 000 232</small> | 850 | 5 to 11 | 1 550 | 8 to 12 | 4 050 | 27 to 30 | 8 |
| RE 232* <small>RENIX REF 000 232 RENIX REF 000 233</small> | 850 | 5 to 11 | 1 550 | 4 to 8 | 4 050 | 23 to 26 | 8 |
| RE 234* <small>RENIX REF 000 234</small> | 750 | 3 to 5 | 1 550 | 7 to 9 | 4 050 | 24 to 27 | 15 |
| RE 234* <small>RENIX REF 000 234</small> | 750 | 0 to 5 | 1 550 | 4 to 9 | 4 050 | 21 to 27 | 15 |
| RE 234* <small>RENIX REF 000 234</small> | 750 | 0 to 5 | 1 550 | 0 to 4 | 4 050 | 17 to 19 | 15 |

* The advance correction take off must be disconnected.