

Testing and adjusting data

A. Standard version

| Engine | Ignition distributor Bosch no. | Adjusting value ¹⁾ of firing point without vacuum 3000/min | Test value ignition timing with/without vacuum | | | Vacuum adjustment after | | Installation value of ignition distributor at starting speed without vacuum |
|--------|--------------------------------|---|--|------------------|------------------|-------------------------|-----------------------|---|
| | | | idle with | 1500/min without | 3000/min without | "retard" at idle | "advance" at 3000/min | |
| 116 | 0 237 404 003 | 30° ²⁾ | TDC ± 3° | 15-19° | 30° | 8-12° | 8-12° | 10° BTDC |
| 117 | 0 237 404 002 | | TDC ± 3° | 14-22° | 30° | 8-12° | 8-12° | 8° BTDC |
| | 0 237 404 006 | | TDC ± 3° | 14-22° | 30° | 8-12° | 8-12° | 10° BTDC |

¹⁾ If normally compressed engines are operating with fuel under 98 RON (min. 88 MON) adjust firing point in direction of "retard" and match to octane rating of fuel used. A reference value for this adjustment is: Set firing point back by 1-2° crank angle per 1 RON. Max. setback should not exceed 6° crank angle.

Attention!

Taking firing point back is considered an "emergency measure". Reduced input and increased fuel consumption will result. In addition, the engine cannot be fully loaded. **As soon as fuel with specified octane number is available, set engine to full advance.**

²⁾ For ignition timing, pull off both vacuum lines for ignition adjustment. Switch off air conditioning system, automatic transmission in position "N" or "P".

 B. National version AUS J S USA

| Engine | Ignition distributor Bosch no. | Adjusting value of firing point with vacuum at idle | Test value ignition timing without vacuum | | Vacuum adjustment after | | Installation value of ignition distributor at starting speed without vacuum |
|--------|--------------------------------|---|---|----------|-------------------------|-----------------------|---|
| | | | 1500/min | 3500/min | "retard" at idle | "advance" at 3000/min | |

AUS 1977

Identification: Silver information plate on cross member in front of radiator

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 001 | TDC | 9-16° | 27-33° | 6-10° | 8-12° | 7° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

AUS starting 1978

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 002 | TDC | 9-17° | 26-34° | 6-10° | 8-12° | 8° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

AUS 1980

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 008 | TDC | 9-17° | 26-34° | 6-10° | 8-12° | 8° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

J starting 1976

Identification: Information plate on cross member in front of radiator in Japanese language

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 001 | TDC | 9-16° | 27-33° | 6-10° | 8-12° | 7° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

Ⓝ 1980

Identification: Information plate on cross member in front of radiator in Japanese language

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 006 | TDC | 9–16° | 27–33° | 6–10° | 8–12° | 7° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

Ⓢ 1976/77

Identification: Blue information plate in Swedish language on cross member in front of radiator

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 001 | TDC | 9–16° | 27–33° | 6–10° | 8–12° | 7° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

Ⓢ 1978/79

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 002 | TDC | 9–16° | 27–33° | 6–10° | 8–12° | 8° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

Ⓢ 1980

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 008 | TDC | 9–16° | 27–33° | 6–10° | 8–12° | 8° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

ⓊSA 1976/77

Information plate in English language on cross member in front of radiator

Identification: 1976 black or green
1977 Federal black, California yellow, Federal high altitudes red

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 002 | TDC | 9–16° | 27–33° | 6–10° | 8–12° | 7° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

ⓊSA 1978/79

Identification: Federal black, California yellow

| | | | | | | | |
|-----|---------------|-----|-------|--------|-------|-------|---------|
| 117 | 0 237 405 002 | TDC | 9–16° | 27–33° | 6–10° | 8–12° | 7° BTDC |
|-----|---------------|-----|-------|--------|-------|-------|---------|

ⓊSA 1980

Identification: Black information plate in English language on cross member in front of radiator

| | | | | | | | |
|-----|---|-----------------------|-------|--------|-------|-------|---------|
| 117 | 0 237 405 011, 0 237 405 012 ²⁾ | 5° BTDC ¹⁾ | 7–13° | 22–28° | 9–11° | 8–12° | 5° BTDC |
|-----|---|-----------------------|-------|--------|-------|-------|---------|

1) Adjustment at operating temperature of engine. Vacuum retard adjustment is switched off above 50 °C engine temperature.

2) Starting February 1980.

Conventional tools

Revolution counter (speedometer), stroboscope

Digital tester

Bosch, MOT 001.03

Checking and adjusting

Note: On standard version, pull off both vacuum lines for ignition adjustment when adjusting firing point. After adjusting firing point, check specified firing point at idle with vacuum.

1 Check firing point with stroboscope or digital tester at specified speed with or without vacuum.

2 Loosen ignition distributor attachment, if applicable, and set adjusting value of firing point by turning ignition distributor.

Screw down ignition distributor and check firing point once again.

3 Check centrifugal and vacuum adjustment of ignition distributor. For this purpose, run through specified test values with or without vacuum adjustment.

