

DIGITAL ENGINE TACHOMETER

SE-1100/1400

Non-contact Gasoline Engine Tachometer

Simply bring the detecting portion close to the high-tension cords (SE-1100) or the ignition coil (SE-1400) to perform speed measurements quickly and accurately. The SE-1100 is small and thin enough to fit easily in your pocket. The SE-1400 has a lot of convenient features, including r/min-r/s unit selection, easy-to-read backlit LCD, and combination use of external detectors.

SE-1100

Measuring from High-tension Cords Type

Easy Verification of Measurement Position

An indicator appears to indicate that the engine spark pulses are being detected properly. When it blinks at a fixed interval, the correct position has been established.

5-Digit Display of Measurement in the Range 100 to 20,000 rpm

The SE-1100 covers the measurement range of 100 to 20,000 r/min, enabling measurements of even high rpm.

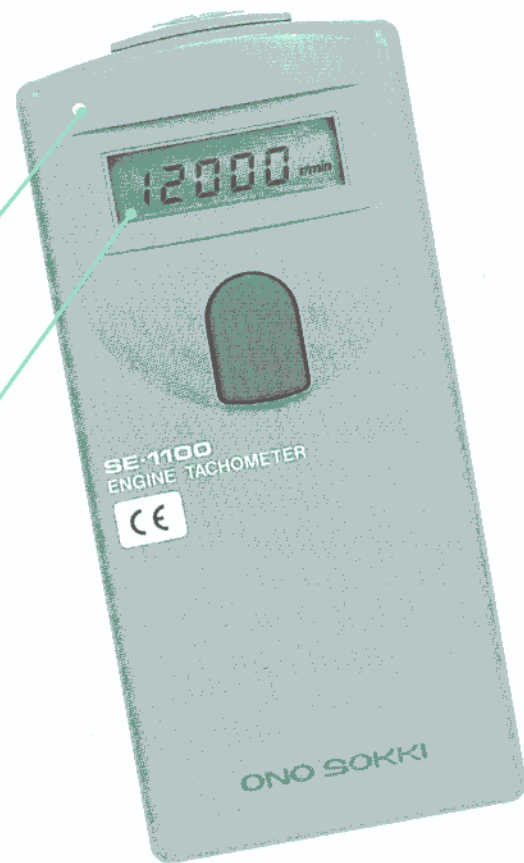
SIGNAL INDICATOR

Some engines may have dead sparks resulting in twice the number of sparks as usual. In such cases, the SIGNAL SELECTOR value should be set to two times the normal setting.

Fig.1

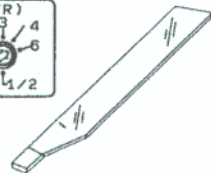
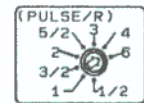
PULSE/R	4-Cycle	2-Cycle	Measurement Range
1/2(P/R)	1 cylinder		100 to 20,000 r/min
1(P/R)	2 cylinder	1 cylinder	100 to 20,000 r/min
3/2(P/R)	3 cylinder		100 to 20,000 r/min
2(P/R)	4 cylinder	2 cylinder	100 to 20,000 r/min
5/2(P/R)	5 cylinder		100 to 20,000 r/min
3(P/R)	6 cylinder	3 cylinder	100 to 15,000 r/min
4(P/R)	8 cylinder		100 to 10,000 r/min
6(P/R)	12 cylinder		*100 to 9,000 r/min

* When set to 6P/R, if the rotational speed exceeds 9,000 r/min, " OVER " mark appears on the display.



Rotary Switch Operation

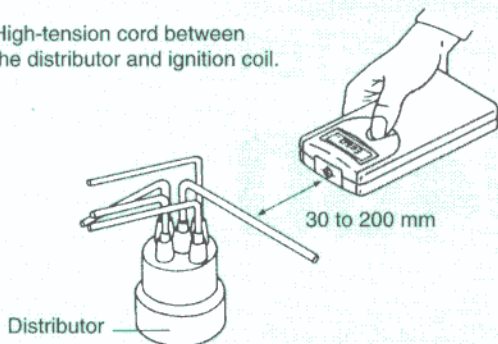
P/R selection is done easily using a special screwdriver provided which is conveniently stored in the battery box inside the SE-1100.



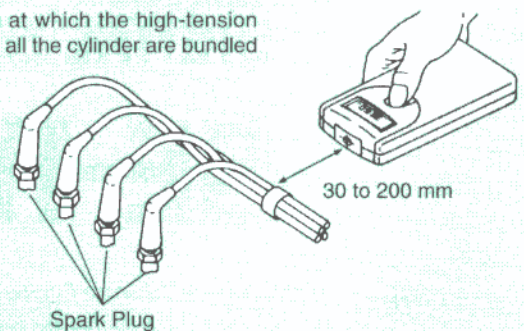
Measurement example

●When the indicator blinks at a fixed interval the measurement position is correct.

High-tension cord between the distributor and ignition coil.



Location at which the high-tension cords for all the cylinder are bundled together.



SPECIFICATIONS / SE-1100

Applicable engine type : Gasoline Engine
2-cycle(1, 2, 3-cylinder)
4-cycle(1, 2, 3, 4, 5, 6, 8, 12-cylinder)

Detection method : Ignition spark noise detection

Detection distance : 30 to 200 mm

Detecting object : High-tension cord

Measurement range : Refer to the Fig. 1 at the left

Display : 5-digit, 7-segment LCD

Measurement display time : 1 second, automatically repeated

Accuracy : ± 1 r/min (± 2 r/min at 1/2 P/R for speeds above 10,000 r/min)

Power supply : Three type AAA batteries

Continuous operating time : Approx. 50 hours

Battery replacement warning : " B " mark appears in the upper right part of the display

Operating temperature range : 0°C to $\pm 40^{\circ}\text{C}$

Storage temperature range : -10°C to $+60^{\circ}\text{C}$

Weight : Approx. 110 g(including batteries)

Outer dimensions : 124.5(L) \times 23(H) \times 58(W) mm

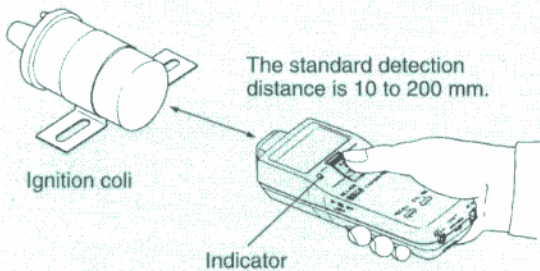
Accessories : Type AAA batteries(3)
Exclusive screwdriver

SE-1400

Measuring from Ignition Coil Type

Measurement example

- When the indicator blinks at a fixed interval the measurement position is correct.



IP-2800

VP-201(Option)

- IP-2800/Attaches to the ignition coil by suction cup

- VP-201/An application example Mounted on a bolt built in the cylinder head section of a 4-cycle, 4-cylinder diesel engine, it measures engine rpm.



Large, Easy-to-read LCD Display with Backlighting Function

The measured value is updated automatically every second. "OVER" mark appears in the display when a measurement range exceeds the maximum value. "BATT" mark appears in the display when battery replacement is required.

Easy Verification of Measurement Position

An indicator appears to indicate that the rotation signals are being detected properly. When it blinks at a fixed interval, the correct position has been established.

Power Switch with Hold Function

The power switch has a hold function, eliminating the need to press it continuously.

Recall Function

Press this switch when the power is off to recall the measured value just before the power was switched off.

Unit Selection

This switch selects either r/min or r/s unit.

External detector input terminal

AC power line operation

The optional PB-703 AC adaptor makes measurement with AC line power possible.



SPECIFICATIONS / SE-1400

Applicable engine type : Gasoline engine
2-cycle(1, 2, 3, 4-cylinder)
4-cycle(1, 2, 3, 4, 5, 6, 8-cylinder)
(Diesel engine is applicable when the VP-201 is used.)

Detection method : Electromagnetic induction method

Detecting object : Ignition leakage magnetic flux

Detection distance : 10 to 200 mm

Measurement range :

4-cycle	2-cycle	Measurement range	
1 cylinder		120~20,000 r/min	2.00~333.33 r/s
2 cylinder	1 cylinder	120~20,000 r/min	2.00~333.33 r/s
3 cylinder		120~20,000 r/min	2.00~333.33 r/s
4 cylinder	2 cylinder	120~20,000 r/min	2.00~333.33 r/s
5 cylinder		120~20,000 r/min	2.00~333.33 r/s
6 cylinder	3 cylinder	120~15,000 r/min	2.00~250.00 r/s
8 cylinder	4 cylinder	120~12,000 r/min	2.00~200.00 r/s

Measurement unit : r/min, r/s

Display : 5 digits, LCD display

Measurement display time : 1 second, automatically repeated

Accuracy : ± 1 r/min (± 2 r/min for speed above 10,000 r/min)
 ± 0.02 r/s (± 0.04 r/s for speed above 166.66 rps)

OVER display : "OVER" mark will appear when the display is 20,000 r/min or 333.33 r/s.

Power supply : Three type AA batteries or a dedicated AC adaptor (option).

Continuous operation time : Approx. 150 hours when backlighting is not used.
Approx. 20 hours when backlighting is used.

Consumption current : 10 mA max. when backlighting is not used.
45 mA max. when backlighting is used.

Low BATT display : When the battery voltage drops below 3.3 V, the Batt mark will appear in the display for warning.

Operating temperature range : 0 to 40 °C

Storage temperature range : -10 to -55 °C

Outer Dimensions : 160(L) × 36(H) × 60(W)mm

Weight : Approx. 120 g (not incl. batteries)
Approx. 190 g (incl. batteries)

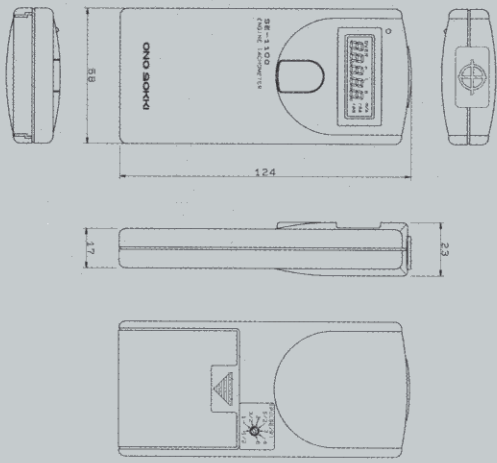
Accessories : Type AA batteries × 3

IP-2800 × 1

Hard case × 1

Options(Sold separately) : VP-201 Engine rpm detectors
PB-703 AC adaptor

SE-1100



SE-1400

