

Category No.	Tool Equipment	Ref. No. T013/09	Page 1 of 5
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date issued October 29, 2009	
Please convey this information to your <input type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> Field Rep		Date Revised	
Applicable Model RX-8		Applicable Country or Specification Worldwide	

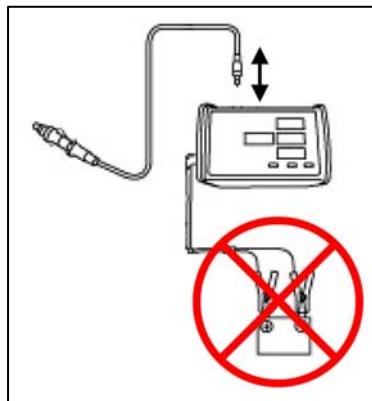
Subject: Caution for usage of RE Compression Tester

DESCRIPTION

If the display of RE Compression Tester (49-F018-9A0C) shows “EEE”, “000” or 200kPa or more low pressure than normal, there is a possibility that the tester has got an internal damage by connecting or disconnecting the pressure sensor cable with connected the power cable to a battery.

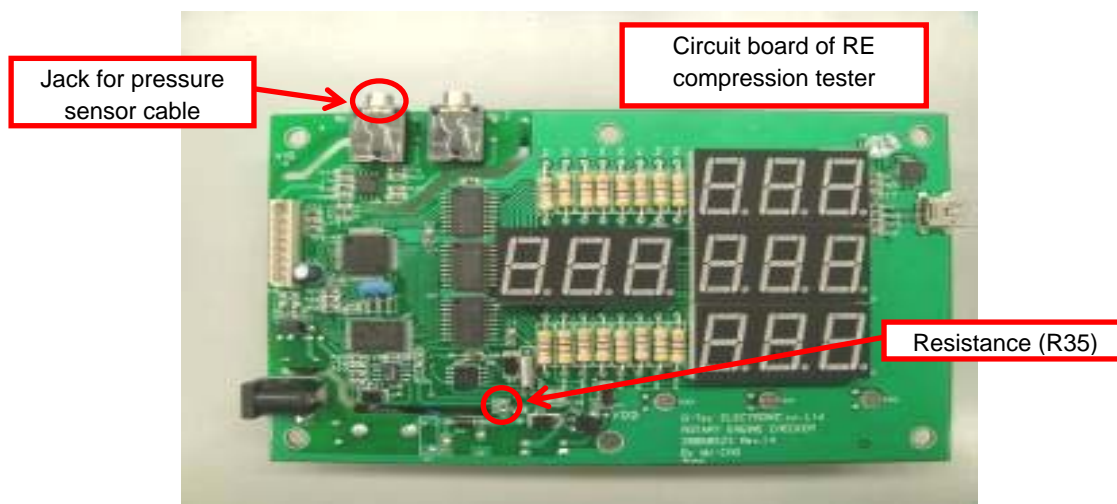
The quick guide which is attached to the tester had incorrect information at step1 through 3 and misleads the above.

When you connect or disconnect the pressure sensor cable, do NOT connect the power cable to a battery.



CAUSE

When the power cable is connected to a battery, battery voltage is applied to a terminal for the pressure sensor even the main power switch is turned OFF. If the pressure sensor cable is connected or disconnected with connected the power cable to a battery, a short circuit could be made inside the jack for the pressure sensor cable. It would make an over current to a resistance (R35) which causes damage on R35. If R35 is broken down, the display would show “EEE” or “000”. If R35 resistance has been increased, measurements would be 200kPa or more low pressure than correct measurements.



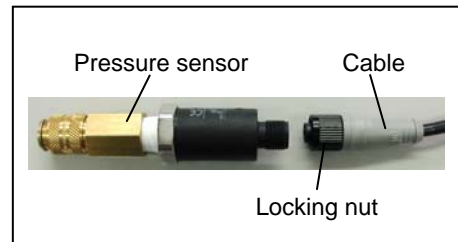
COUNTERMEASURE

- 1) Replace a quick guide from old one to the revised one which is attached.
- 2) Perform the pre-inspection to check your RE compression tester. If the tester is not normal, inquire at your contact window. Repairing cost for R35 damage will be free of charge.

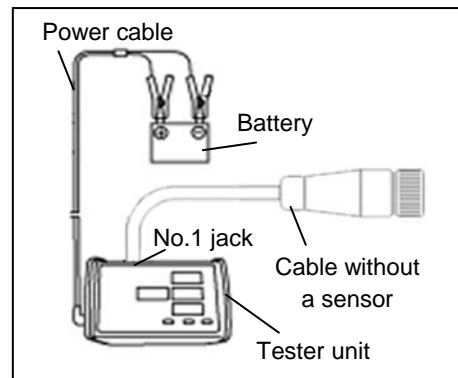
In addition, perform the pre-inspection at once a year periodically to check your tester and find hidden faults promptly even though the quick guide recommends that a regularly inspection must be done at least once every four years.

PRE-INSPECTION

- 1) Turn the locking nut counterclockwise and disconnect the pressure sensor from the cable.



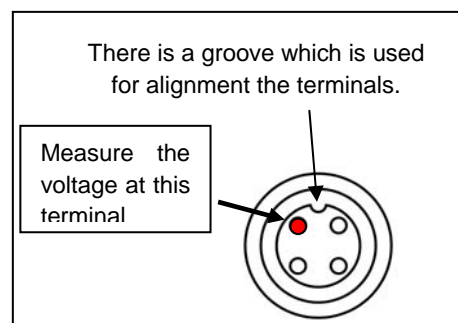
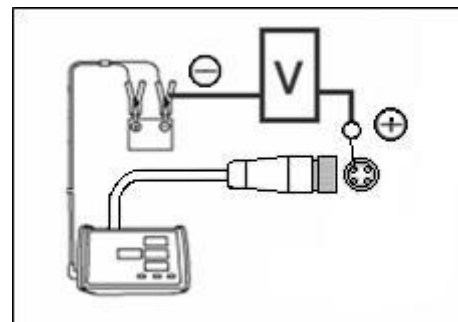
- 2) Connect the pressure sensor cable to "No.1" jack without the sensor to the tester unit first and then connect the power cable to a battery.



- 3) Measure the voltage as shown in the pictures.

- 4) If the voltage is in the range below, the tester is normal. If the voltage is out of the range, please inquire at your contact window.

Voltage range:14.5 – 15.5 volts



- 5) After the pre-inspection, disconnect the power cable from the battery first and then disconnect the pressure sensor cable from the tester unit.

CONTACT WINDOW

<North American market>

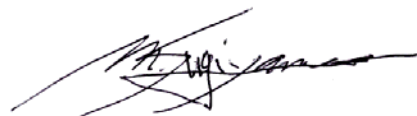
America Kowa Seiki, Inc.
3551 Voyager Street
Unit A, Suite 101
Torrance, CA 90503
Attention: Mr. M. Kitamura, President
Telephone: (1) 310-638-1000
Fax: (1) 310-638-3005

<European market>

Werner Weitner GmbH
Sollnau 12 + 14
85072 Eichstätt Germany
Attention: Mr. R Strasser
Telephone: (49) 8421-981-612
Fax: (49) 8421-981-698
roland.strasser@werner-weitner.com

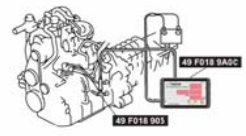
<Other market>


Mazda Motor Corporation
Upstream Service Program Group
3-1, Shinchi, Fuchu-cho, Aki-gun
Hiroshima, Japan 730-8670
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Telephone: (81) 82-252-5240
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Masao Sugiyama
Manager
Upstream Service Program Group
Vehicle Service & Program Dept.

RE COMPRESSION TESTER

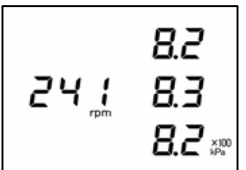
1	車両側に圧力センサを取り付け、⑥ NO.1に接続する。 (別売のセンサーを同時に使用する場合は、NO.2に接続する。)	
	Install the pressure sensor on the engine and connect the sensor cable to the No. 1 connector ⑥. (When use a sensor sold separately at the same time, connection to the NO 2 of ⑥.)	

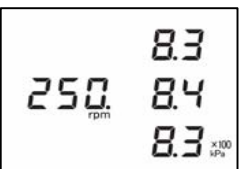
2	⑧POWERに電源コードを接続し、電源コードのクリップを車両のバッテリーへ接続します。	
	Connect the power cable to the POWER connector ⑧ and connect the other end of the cable to the vehicle battery.	

3	③ON/OFF ボタンを押して、電源を入れる。	
	Press the ON/OFF button ③ to turn on the power.	

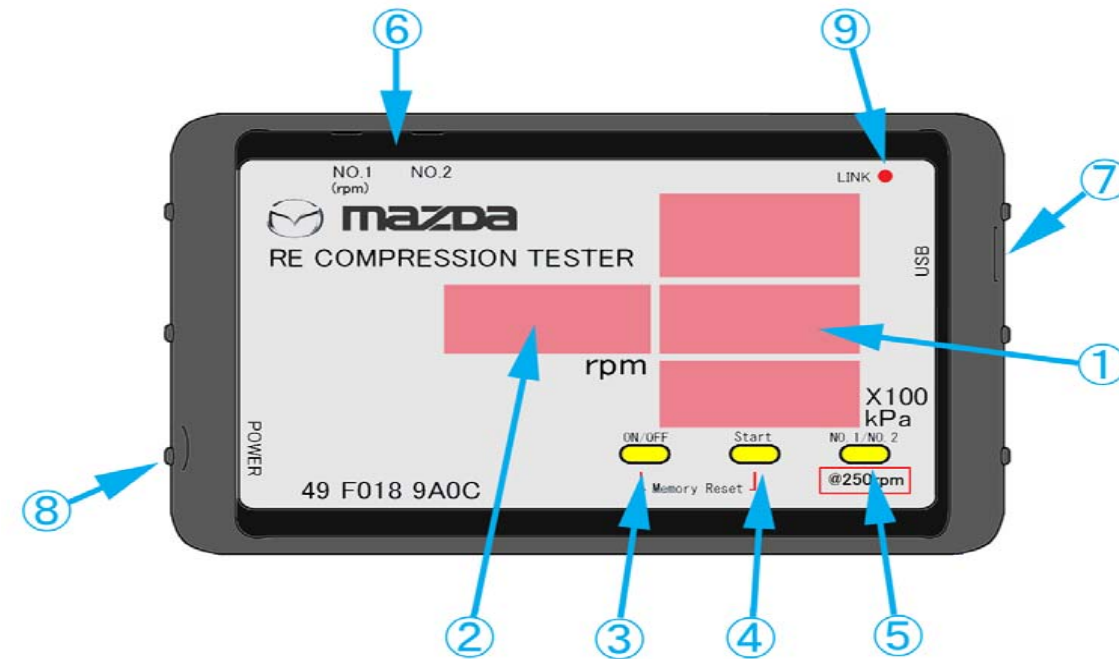
4	④Startボタンを押して、20秒以内にクランキングを行う。	
	Press the Start button ④ and start cranking the engine within 20 seconds.	

5	『測定結果の表示ができるまで』クランキングを行う。7秒間以上	
	Continue cranking "until measurements are displayed." (about 7 seconds).	

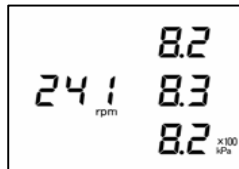
6	測定値(エンジン回転数・3室の圧力値)が表示され測定完了。	
	Definite measurements (Engine rpm / Pressure of three combustion chambers) are displayed to complete the measurement sequence.	

7	250rpmの補正圧力値は、⑤NO.1/NO.2ボタンを2秒以上長押しする。	
	To display 250 rpm-corrected measurements, hold down the No. 1/ No. 2 button ⑤ for two or more seconds .	

簡単操作ガイド The operation guide whom it is easy



- | | |
|-----------------|------------------------------|
| ① 圧力表示部 | ① Pressure display |
| ② 回転数表示部 | ② Engine speed display |
| ③ ON/OFF ボタン | ③ ON/OFF button |
| ④ Start ボタン | ④ Start button |
| ⑤ NO.1/NO.2 ボタン | ⑤ NO.1/ NO .2 button |
| ⑥ 圧力センサ コネクタ | ⑥ Pressure sensor connectors |
| ⑦ USB コネクタ | ⑦ USB connector |
| ⑧ 電源 コネクタ | ⑧ POWER connector |
| ⑨ 接続状況表示部 | ⑨ LINK lamp |

8	2センサの場合は、⑤NO.1/NO.2ボタンを押して、NO.1とNO.2の表示を切替る。	
	To switch measurement display between the No. 1 and No. 2 sensors during two-sensor measurement, press the No. 1/No. 2 button ⑤. The display switches every time the button is pressed.	

測定終了後は、本体の電源をOFFにしてバッテリーの接続を取外してから、圧力センサ等の取り外しを行ってください。
Turn off the power switch and disconnect the power cable from the battery, then remove the pressure sensor when measuring finished.

パソコンを使用したグラフの表示や詳しい本体の使用方法は、付属のCD内の取扱説明書をお読みください。
The usage of the display of the graph which used a PC for and the detailed main unit please read an instruction manual in an attached CD-ROM.

RE COMPRESSION TESTER

簡単操作ガイド The operation guide whom it is easy

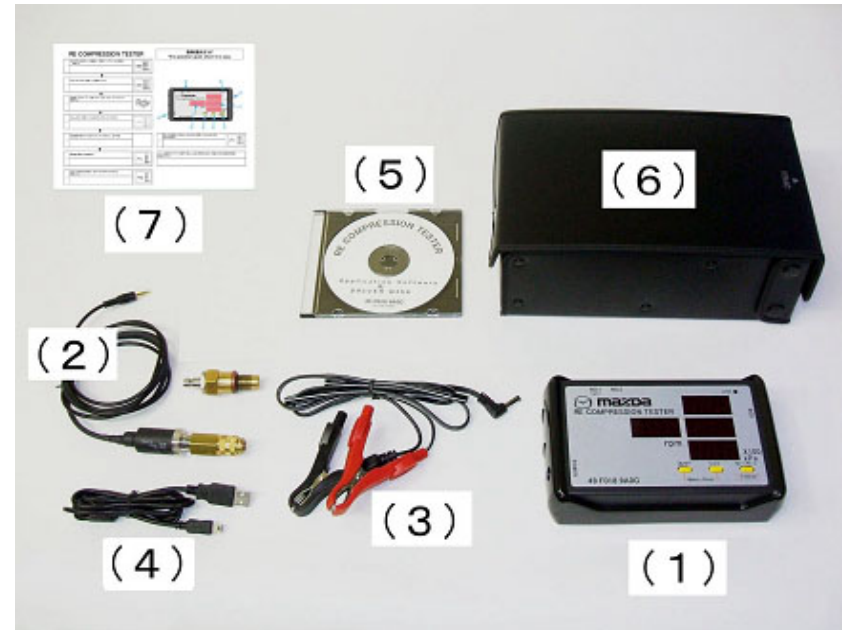
お手元に届いたREコンプレッションテスターの構成品をご確認ください。

- (1) 本体 1個
- (2) 圧力センサーセット 1組
 - 1 圧力センサー 1個
 - 2 センサーコード 1本
 - 3 アダプタ 1個
- (3) 電源コード 1本
- (4) USBケーブル 1本
- (5) CD-ROM 1枚
- (6) ケース 1個
- (7) 簡単操作ガイド(本書) 1部

Check inside of your new RE Compression Tester package.

You should find all of these components in it.

- (1) Tester main unit 1
- (2) Pressure sensor set 1
 - 1 Pressure sensor 1
 - 2 Sensor cable 1
 - 3 Adapter 1
- (3) Power cable 1
- (4) USB cable 1
- (5) CD-ROM 1
- (6) Case 1
- (7) Quick Reference Guide (this guide) 1



警告

- ・圧力センサの本体への取り付けは、本体に電源が供給されていない状態で行ってください。
- ・本製品の電源を接続する際は、極性を間違えないように接続を行ってください。
- ・本製品を使用しながら、自動車の運転又は、装置の操作を行わないでください。
- ・本製品を使用の際は、必ず測定を行う車両の『整備書』を参照の上、作業を行ってください。
- ・エンジン暖機後は、所定の時間が経過してから作業を行ってください。
- ・本製品を使用の際は必ず、構成品をご使用ください。

WARNING

- ・When connect the pressure sensor, make sure the tester is not supplied the power.
- ・When connecting the tester to the power supply, make sure the polarity is not reversed.
- ・Never drive the vehicle or operate vehicle equipment while the tester is being used.
- ・Follow the relevant instructions in the service manual for the vehicle under test whenever you use this tester.
- ・After warming up the engine, wait for the specified length of time before starting the compression test.
- ・Use only the original components when using this tester.

注意

- ・本製品の分解・改造・修理をご自分で行わないでください。火災や感電・故障の原因になります。又、故障時の保証対象外となります。
- ・本製品を次のようなところで使用しないでください。火災や感電・故障の原因になります。
 - (1) 高温又は、多湿なところ、結露を起こすところ
 - (2) 水を使用する場所
 - (3) 直射日光に長時間あたる場所又は、火気の周辺
- ・使用後は、専用ケースに収納してください。
- ・本製品は、測定機器の分類に属します。最低4年に一回の定期的な点検を行ってください。

CAUTION

- ・Do not disassemble, modify and/or repair the tester yourself; otherwise fire would result, you may suffer electric shocks, and the tester may develop problems. Furthermore, doing so will void the warranty in the event of a fault.
- ・This tester must not be used in any of the following places:
 - (1) High-temperature places, highly humid places, and where condensation will occur.
 - (2) Places where water is used.
 - (3) Places exposed to direct sun light for long time or near heat sources.
- ・Store the tester into the case furnished after it is used.
- ・This tester is categorized as a measuring instrument. It must be regularly inspected, at least once every four years.

測定表示とエラーメッセージ Measurement indication and error message

操作及び項目	テスターの表示	確認方法
正常な表示		エンジン回転数と圧力測定値を表示します。
Startボタンを押した後に、 1) 20秒間信号が来ない。 2) 測定を行っていない。 3) 3室ともに29kPa以下の場合		接続に誤りがないか確認し、再度測定を行う。それでも左図表示の場合は、エンジンまたは、テスタの不具合が考えられます。
エンジンの圧力が1室でも 29~295kPaの範囲だった場合 又は、 1室又は、2室が29kPa以下の場合、 又は、回転数が100rpm以下の場合		接続に誤りがないか確認し、再度測定を行う。それでも左図表示の場合は、エンジンの故障が考えられます。又、パソコンで波形を表示することも確認が行えます。

Operation and condition	Tester display	Check point
Normal display		Engine speeds and pressure measurements are normally displayed.
After the Start button is pressed. 1) Signals do not arrive in 20 seconds. 2) Measurement is not made. 3) Measurements for all three combustion chambers are 29 kPa or lower.		Check for connection errors and perform another measurement. If the display still remains in the state shown to the left, defective tester or engine failure is probable.
Compression pressure is 29 to 295 kPa in any one of combustion chambers Compression pressure is 29 kPa or lower or engine speed is 100 rpm or lower in one or two combustion chambers		Check for connection errors and perform another measurement. If the display still remains in the state shown to the left, connect the tester to the personal computer and check waveforms. If an irregular waveform is displayed, an engine failure is probable. If a wide waveform is displayed, a low battery is probable.

注意

- ・本製品内部には、内部時計を駆動させるため乾電池が内蔵されています。通常の使用状態で、約4年間の作動が可能な容量ですが、乾電池の種類によっては内部で液漏れを起こす場合があります。2年に1回の割合で乾電池の点検を行ってください。又、必要に応じて乾電池の交換を行ってください。

CAUTION

- This tester contains battery for the built-in clock. Its expected lifetime is 4 years. To prevent leakage, please check it every 2 years. In addition, please change it if necessary.