

MAZSPORT, Inc.

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Mazsport Ignition Solution Installation

This installation can be performed with basic hand tools by the novice mechanic however, if at any point you question your ability to install this system please contact a professional. This product is for racing purposes only and Mazsport, Inc. assumes no responsibility for improper use or installation.

Required Tools:

8 mm and 10 mm socket
Ratchet and extension
8mm and 10mm wrench
Wire snips

The included pictures have been filled with the corresponding numbered step (see below) for illustration purposes. Letters referring to the hardware image will be in bold below. Mazsport has included one extra nut, bolt and washer to further ease your installation experience (**G**).

You may wish to remove the intake duct or air box assembly from your RX-8, depending on your modifications to allow easier access to the coils.

- 1) Disconnect the negative battery terminal.
- 2) Remove the spark plug wires and then disconnect the grey connectors attached to each coil and label them 1, 2, 3 and 4 from the front of the vehicle towards the rear.
- 3) Remove the 10mm nuts (**4**) securing the ignition coils to the stock coil mounting bracket and remove the four coils.
- 4) Remove the wiring harness from the harness guides on the coil bracket with a small screw driver or pick. Remove the bolts attaching the bracket to the engine then remove the bracket from the car.
- 5) Disconnect the single, black ignition condenser connector. Terminate the female (harness) side of this connector by using the supplied 2" section of heat shrink tubing (**B**).
- 6) Remove the Mazsport Ignition Upgrade wiring harness from bag #2 and begin the installation by plugging the male side of the ignition condenser connector into the light red female spade terminal.
- 7) Attach the short black ground wire to the threaded hole in the top of the A/C compressor bracket by using one of the 10mm bolts from the uninstalled stock coil bracket. Do not tighten this bolt yet.

- 8) Plug in the grey Mazsport harness connectors in order from shortest to longest (refer to the factory engine harness colors listed below).

Factory connector previously labeled #1- Front Leading	(L1) – Green wire
Factory connector previously labeled #2- Front Trailing	(T1) – White wire
Factory connector previously labeled #3- Rear Leading	(L2) – Yellow/Green
Factory connector previously labeled #4- Rear Trailing	(T2) – Blue/Orange

- 9) Carefully position the grey connectors up and back under the intake manifold. Use a zip tie to secure them.
- 10) Tighten the short black ground connector with the wire pointed towards the back of the car using a ratchet with a long extension.

IMPORTANT NOTE – This connections must be clean and tight or a component failure may occur which will not be covered under warranty.

- 11) Route and secure the single small factory alternator output wire as shown in the photo.

- 12) **CAUTION: FIRE RISK – DO NOT DISCONNECT THE RED FUEL CONNECTOR, IT CONTAINS FUEL THAT IS UNDER HIGH PRESSURE! NO SMOKING, SPARKS OR OPEN FLAME!**

Disconnect the plastic clasps (2) holding the two hard fuel lines to the plastic upper intake manifold. Unplug the line with the blue quick disconnect by GENTLY spreading the blue connector, twisting slightly and pulling up. Feed the blue line under the red line, reversing the positions of the two lines in the retaining brackets and plug the blue line back in. Listen for the 'click' ensuring a good connection of the line.

- 13) Plug in and mount the Mazsport Igniter (D) using the supplied bracket. The stepped, thinner side of the bracket installs against the galvanized engine hook as viewed in the photo.

- 14) The new Mazsport Ignition coils will need to be removed from the bracket to allow the bracket to be mounted. Slightly loosen the acorn nuts on either end of the bracket by hand and then lift the ignition coils from the bracket as an assembly. Install the Mazsport coil bracket noting the orientation in the picture. The short M5 bolt should be used in the front hole. The longer bolt should be used in the rear through the double thickness step (F). Pay close attention to the alternator wire routing under the bracket and verify that it is not pinched during installation.

- 15) Lower the coil assembly back into the bracket evenly so that the coils do not bind. The flat washers should be on the outside of the coil bracket. Tighten the acorn nuts to secure the coils but do not over tighten.

- 16) Plug the black & green Mazsport ignition coil connectors into the coils and secure the harness to the side of the bracket as shown in the picture.

- 17) Secure the large wiring harness to the side of the ignition coil bracket with a zip tie.

- 18) Remove the fuse panel cover and connect the empty fuse holder to the front 10mm bolt as shown in the photo.

19) Using the supplied bracket **(C)**, mount the relay under the fuse panel tab as shown in the photo.

20) Route the long black, ground wire behind the factory wiring harness and to the main chassis ground connection near the factory battery location and tighten. See photo.

21) Install Mazsport plug wires as shown in the photos. Use the included image and table of lengths below:

- Front Leading (L1) – 21" **(1)**
- Front Trailing (T1) – 20" **(2)**
- Rear Leading (L2) – 17.5" **(3)**
- Rear Trailing (T2) – 14.5" **(4)**

TIP: After installation double check that the plug wires are installed correctly. Improper plug wire installation may cause poor engine performance or engine damage.

22) Install supplied 25A fuse **(E)** into the fuse holder. The red LED will light only if the fuse is blown and the ignition is in the 'on' position. Under normal operation, the LED will remain unlit.

23) Verify all connections are secure and reinstall any intake components removed during installation.

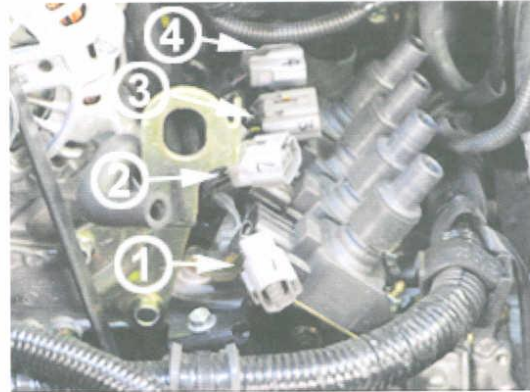
24) Start the engine and look under the hood for any visual spark or unusual noise. If anything abnormal is present stop the engine, determine the cause and remedy the problem.

25) Test drive and Enjoy

We appreciate you choosing Mazsport for all your Mazda needs!



0) Stock Ignition



2) Label Connectors



3) Remove Coils



4) Remove Bracket



5) Condenser Connector



6) Condenser Connector

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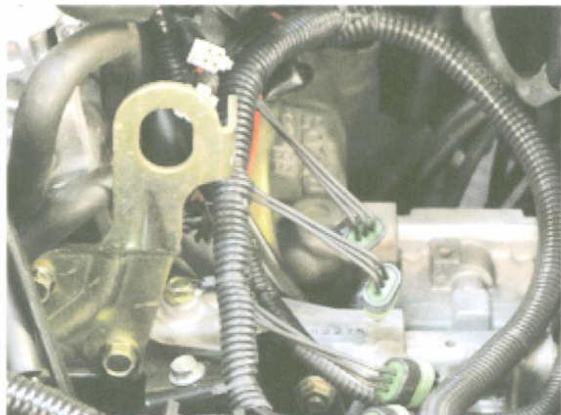
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7) Ground Connector



8) Factory Connections



9) Tucked Connectors



11) Alt Wire

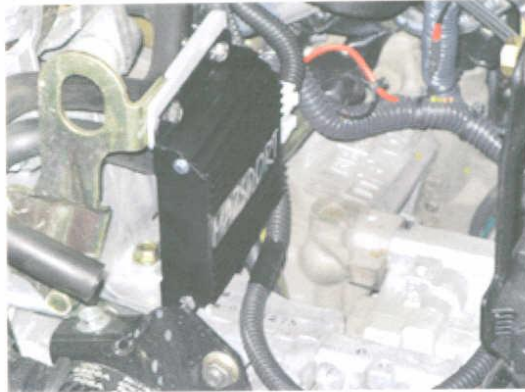


12) Tank / EVAP Before



12) Tank / EVAP After

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13) Ignitor Mounted



14) Bracket Mounted



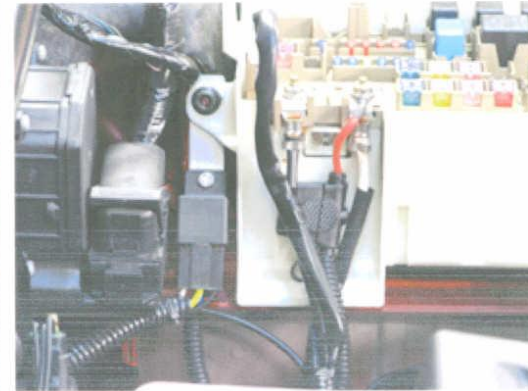
15) Coils Installed



16) Coil Connectors



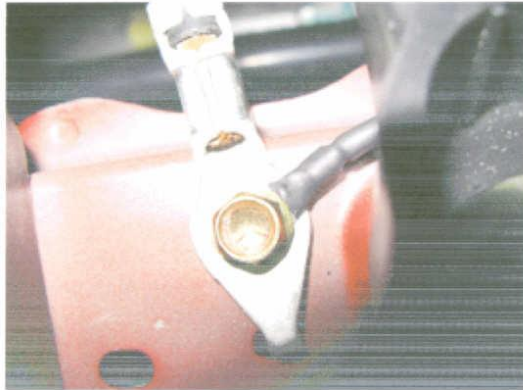
17) Secure Large Harness



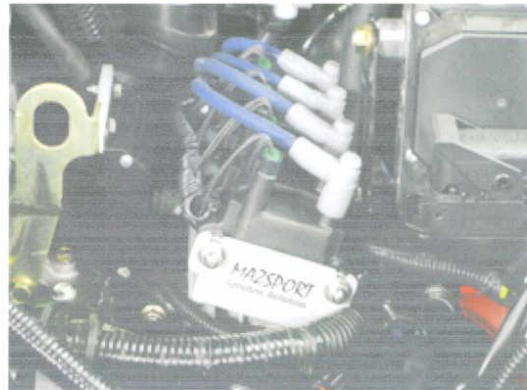
18) 19) Power Fuse & Relay

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20) Main Ground



21) Plug Wires A



21) Plug Wires B

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