



!!!!CAUTION!!!!

TO HELP AVOID ISSUES WE WOULD LIKE TO EXPLAIN SOME OF THE PRIMARY REASONS CUSTOMERS RUN INTO ISSUES WITH THEIR IGNITION COILS SO THAT YOU CAN ENGINE LONG SERVICE LIFE AND HIGH PERFORMANCE.

PLEASE INSPECT PRODUCT BEFORE REMOVING FROM PACKAGE FOR DAMAGE. HANDLE PRODUCT WITH CARE DURING INSTALLATION AND REMOVAL FROM PACKAGING. **DO NOT DROP OR DAMAGE MAY RESULT!** PRODUCT RETURNS ARE NOT ACCEPTED ONCE REMOVED FROM PACKAGING.

PLEASE TAKE CARE NOT TO PLACE EXCESSIVE FORCE ON THE HARNESS CONNECTOR AND TAKE CARE NOT TO PLACE EXCESSIVE AMOUNTS OF FORCE OR IMPACT PRESSURE ON THE HARNESS CONNECTOR POINT AS IT MAY CAUSE DAMAGE WHICH IS NOT COVERED UNDER WARRANTY.

SOME KITS MAY HAVE SLIGHT VARIANCES IN THE COMPONENTS FROM APPLICATION TO APPLICATION WHICH MAY REQUIRE MINOR MODIFICATION TO FIT THE APPLICATION.

PLEASE FOLLOW ALL INSTALLATION PROCEDURES IN THIS MANUAL. INCORRECT ASSEMBLY OR INSTALLATION MAY RESULT IN DAMAGE TO THE IGNITION COIL. DO NOT FORCE IGNITION COIL INTO DOWN INTO PLACE OR DAMAGE TO COIL AND COIL LOCKS (WHICH HOLD IGNITION COIL IN PLACE) MAY OCCURE. (THE BOTTOM OF THE IGNITION COIL HAS A THREADED COIL LOCK)

DO NOT INSTALL MULTIPLE COMPONENTS AT THE SAME TIME. IT IS HIGHLY RECOMMENDED THAT THOROUGH TESTING OF IGNITION COILS BE MADE PRIOR TO INSTALLING ANY OTHER COMPONENTS SUCH AS SPARK PLUGS OR IGNITION BOOSTERS. ON RARE OCCASION ELECTRICAL SYSTEMS CANNOT HANDLE INCREASED VOLTAGE LEVELS WITH COMBINED COMPONENTS. BECAUSE OF THIS, IT IS ABSOLUTELY IMPERATIVE TO TEST COMPONENTS ONE SYSTEM AT A TIME. FOR EXAMPLE, IGNITION COILS, IGNITION BOOSTER, SPARK PLUGS.

TAKAI SUPER COIL SET - INSTALLATION INSTRUCTIONS (PLEASE READ THOROUGHLY)

IMPORTANT INSTALLATION NOTES!

Most ignition coils are a direct plug and play replacement units with exception of Seadoo ignition coils which must use OEM upper gaskets which must be removed from the OEM ignition coil and placed on the Takai Super Coil to properly seal the spark plug bore from water intrusion.

NOTE TO INSTALLER,

- 1) If the ignition coil does not connect directly to the spark plug and is too short please follow the procedure in Section B for installation instructions.
- 2) If spark plug terminal nuts are supplied with your kit please use section C installation procedures.
- 3) If ignition coil comes with a mounting bracket and ignition wire please use section D installation procedures.
- 4) If non of the previous apply please use installation instructions in Section A.
- 5) Do not use die-electric grease on the output or input connections with the installation of these ignition coils, it may void your warranty.
- 6) Do not remove the upper gasket seal or move it from the original location, they seal out moisture between the outer protective sleeve and the ignition coil itself.

IMPORTANT NOTE : 11+ MODEL YEAR KAWASAKI 450's AND KTM 450's MAY REQUIRE FUEL MAP ENRICHENING DUE TO INCREASED FUEL BURN OF TAKAI IGNITION COILS. KX TYPICALLY REQUIRES THE WHITE IGNITION MAP WITH OUR IGNITION COIL TO WORK PROPERLY.

- 1) Remove the spark plug(s) and inspect the spark plug terminal threads for damage. If they are worn it will be necessary to replace the spark plug(s) or ignition coil damage may result to the ignition coil lock which may result in damage to the ignition coil.
- 2) Apply a very thin coat of dielectric grease to the ceramic portion of the spark plug. Do not apply to the spark plug electrical terminal that connects to the ignition coil.
- 3) Re-install the spark plug(s).
- 4) Install the ignition coil while rotated 90 degrees in a counter clockwise rotation.
- 5) Take the Takai M-RAIKOU ignition coil(s), push firmly down until they snap and seat into place.
- 6) While pushing down on the unit twist 720 degrees clockwise if possible or until it can no longer be rotated to ensure a lock to the spark plug. Pulling upwards should result in the ignition coil being seated firmly on the spark plug.

IMPORTANT NOTE! To remove ignition coil it will be necessary to rotate the ignition coil counter clockwise as the threads will lock to the spark plug terminal.

- 7) Connect ignition coil(s) to the OEM ignition wiring harness. Make sure the appropriate cylinders are connected in the same fashion they came off the bike.
- 8) Skip step 8 for multi cylinder applications. Certain single cylinder applications will require that an adaptor harness be made with the supplied parts. Use wire to splice eyelet and ground to chasis, this is ignition negative (please note coil polarity inside coil connector). If eyelet is not provided use adaptor to connect to the OEM wire harness. Install supplied rubbers on wire, install pin to wire, install pin into adaptor. Repeat for both ends. Coil end comes with a pin lock which is either yellow or red. Push into connector to lock pins firmly into place. If unsure of wire polarity, make sure negative wire ohms to ground using an ohm meter. If still unsure please

consult a certified mechanic.

9) Start engine to make sure all components are installed correctly and assemble remaining parts of the bike required.

10) Installation complete, enjoy the benefits of your M-RAIKOU Super Coil(s).

SECTION B INSTALLATION INSTRUCTIONS

1) Remove the spark plug(s) and inspect the spark plug terminal threads for damage. If they are worn it will be necessary to replace the spark plugs or ignition coil damage may result to the ignition coil lock which may result in ignition coil damage.

2) Apply a very thin coat of dielectric grease to the ceramic portion of the spark plug. Do not apply to the spark plug electrical terminal.

3) Install ignition coil locks to the top of the spark plug and re-install the spark plug(s) or Remove the lower ignition coil rubber boot on all ignition coil(s) and screw the supplied adaptors clockwise into the bottom of the ignition coil until it is fully seated. Repeat for other ignition coil(s) if any.

4) Re-install all ignition coil lower rubber boot(s) if removed.

5) Install the ignition coil while rotated 90 degrees in a counter clockwise rotation.

6) Take the Takai M-RAIKOU ignition coil(s), push firmly down until they snap and seat into place.

7) While pushing down on the unit twist 720 degrees clockwise if possible or until it can no longer be rotated to ensure a lock to the spark plug. Pulling upwards should result in the ignition coil being seated firmly on the spark plug.

8) Skip step 10 for multi cylinder applications. Certain single cylinder applications will require that an adaptor harness be made with the supplied parts. Use wire to splice eyelet and ground to chasis, this is ignition negative (please note coil polarity inside coil connector). If eyelet is not provided use adaptor to connect to the OEM wire harness. Install supplied rubbers on wire, install pin to wire, install pin into adaptor. Repeat for both ends. Coil end comes with a pin lock which is either yellow or red. Push into connector to lock pins firmly into place. If unsure of wire polarity, make sure negative wire ohms to ground using an ohm meter. If still unsure please consult a certified mechanic.

IMPORTANT NOTE! To remove ignition coil it will be necessary to rotate the ignition coil counter clockwise as the threads will lock to the spark plug terminal.

9) Connect ignition coil(s) to the OEM ignition wiring harness. Make sure the appropriate cylinder(s) are connected in the same fashion they came off the bike.

10) Start engine to make sure all components are installed correctly and assemble remaining parts of the bike required. Engine should respond with a smooth clean idle and crisp throttle response.

11) Installation complete, enjoy the benefits of your M-RAIKOU Super Coil(s).

SECTION C INSTALLATION INSTRUCTIONS

1) Apply a very thin coat of dielectric grease to the ceramic portion of the spark plug. Do not apply to the spark plug terminal.

2) Install the supplied terminal nuts on the spark plug(s). Re-install the spark plug(s).

3) Remove the lower ignition coil rubber boot on all ignition coil(s).

4) Screwing the supplied adaptor(s) clockwise into the bottom of the ignition coil until it is fully seated. Repeat for all ignition coil(s).

- 6) Re-install all ignition coil lower rubber boot(s).
- 7) Take the Takai M-RAIKOU ignition coil(s), push firmly down until they snap and seat into place.
- 8) Skip step 8 for multi cylinder applications. Certain single cylinder applications will require that an adaptor harness be made with the supplied parts. Use wire to splice eyelet and ground to chasis, this is ignition negative (please note coil polarity inside coil connector). If eyelet is not provided use adaptor to connect to the OEM wire harness. Install supplied rubbers on wire, install pin to wire, install pin into adaptor. Repeat for both ends. Coil end comes with a pin lock which is either yellow or red. Push into connector to lock pins firmly into place. If unsure of wire polarity, make sure negative wire ohms to ground using an ohm meter. If still unsure please consult a certified mechanic.
- 9) Connect ignition coil(s) to the OEM ignition wiring harness. Make sure the appropriate cylinder(s) are connected in the same fashion they came off the bike.
- 10) Start engine to make sure all components are installed correctly and assemble remaining parts of the bike required. Engine should respond with a smooth clean idle and crisp throttle response.
- 11) Installation complete, enjoy the benefits of your M-RAIKOU Super Coil set.

SECTION D INSTALLATION INSTRUCTIONS - REMOTE MOUNT (GOLD BRACKET AND IGNITION WIRE)

- 1) Apply a very thin coat of dielectric grease to the ceramic portion of the spark plug. Do not apply to the spark plug terminal.
- 2) Install the supplied ignition wire to the ignition coil.
- 3) **Install ignition coil using supplied mounting bracket and nylon hardware. Be sure to use the supplied washers and nylon spacers between the frame and the gold mounting bracket to isolate the coil from the frame.**
- 4) Take the Takai PowerCORE ignition wire and push firmly down until it snaps and seats on the spark plug.
- 5) Connect ignition coils to the OEM ignition wiring harness. Make sure the appropriate cylinders are connected in the same fashion they came off the bike.
- 6) Certain applications will require that an adaptor harness be made with the supplied parts. Use wire to splice eyelet and ground to chasis, this is ignition negative (please note coil polarity inside coil connector). If eyelet is not provided use adaptor to connect to the OEM wire harness. Install supplied rubbers on wire, install pin to wire and crimp, install pin into appropriate adaptor. Repeat for both ends. Coil end comes with a pin lock which is either yellow or red. Push into connector to lock pins firmly into place once installed. If unsure of wire polarity, make sure negative wire ohms to ground using an ohm meter. If still unsure please consult a certified mechanic.
- 7) Start engine to make sure all components are installed correctly and assemble remaining parts of the bike required. Engine should respond with a smooth clean idle and crisp throttle response.
- 8) Installation complete, enjoy the benefits of your M-RAIKOU Super Coil set.

IMPORTANT NOTES : It is recommended to supplement the ground wire from the battery to the frame. Please supplement negative battery post to engine ground (preferably heads) for further improved performance.

Also, please examine ignition coils prior to removing the safety seals.

Due to the nature of the high insulation value material on the product they are very susceptible to impact damage. All units are hand inspected before packaging to be free from defects and workmanship. Please handle the product with care and do not place excessive force on ignition coil connectors. Once the package seals are opened external coil damage coil will not be covered under the Takai warranty.

Conditions of Product Use

TAKAI ENGINEERING guarantees certain products free from defects and workmanship for a period of 1 year (except special order items) from the date of purchase if installed by a qualified professional. Products that fail will be replaced at TAKAI ENGINEERING's option when product quality has been marked as the failing issue. This warranty does not include abuse, misuse, modification or improper installation of the product. Warranty is limited to the purchased product through TAKAI ENGINEERING and shall not be liable in part or whole for any special, incidental or consequential damages or costs that may occur with these products. The foregoing is exclusive and in lieu of any other warranties either expressed or implied and is valid only to the original purchaser. During a return product must be accompanied by an RMA number and must be received within 30 days of RMA issue. TAKAI ENGINEERING may at our discretion charge appropriate handling and re-stocking fees. Minimum \$20 handling fee subject to on returned product to be charged for processing, Maximum 25%. Items marked "For exchange only" or "Special order items" are not subject to cash refund and will only be granted credit towards other products. All spark plugs carry a 30day money back guarantee and may not be returned in used condition.

TAKAI ENGINEERING reserves the right to use reconditioned materials for warranty items.