CODE	763-1427010
APPLICATION	Dio110（JF-31）

●Thank you for purchasing Kitaco product. Read and understand the instruction before installing.

ATTENTION (MUST READ)

●This parts is made exclusive for racing use. Note that this parts is not covered under warranty. Obey national and local laws and regulations.

●We are not responsible for violation of law or damages and accidents caused by assembling mistake and improper setting.

●Please ask authorized mechanic for assembling and setting. Ask a specialist at specialty shop if you do not understand the role of the surrounding parts.

●Do not modify the way which is not listed or it will cause damage and trouble. This product is precision machinery. Do not apply excessive force or disassemble.

●Refer to the manufacturer service manual when installation.

●By installing this product, output characteristic is different from normal. Please enhance the brake to match the power and improve steering stability. Please be careful of riding.

●Do not spark the plug outside of cylinder for spark check. It might cause of fire.

SPEC	●By changing i-map DIP switch, recommended fuel control map with Kitaco tuning parts is selectable. ●By releasing rev limitter to bring out engine original performance. ●Connect option product "PC interface cable" to computer and able to set up ±40%* compensation value for each rev and accelerator opening.
i-map 注意事項 （必ずお読み 下さい）	▼For installing and using injection controller. ●If installed to normal vehicle, it might be unable to perform perfectly because of lack of power. It is usable with Kitaco parts together. However, using other company's products as muffler, air cleaner, intake parts ,may cause of decrease power. ●Do not install near strong noise such as ignition coil, it causes of malfunction, trouble, etc. ●This product works under electrical system is normal. There is no guarantee of work under other special parts installed vehicle. (spark plug, plug cap, high tension code, ignition coil, HID, audio products, etc) ●This product (DIP switch, etc) is not perfectly waterproof. Water might enter if riding under rain, washing, concentrated water. Install where can avoid rain, etc. ●Please do wiring process as following attached wiring illustration. Do not take electrical ground from frame, it might cause of break machine. ●This product is precision equipment. If installing to hard vibration place, it causes of inability to perform as intended and at the worst case, it might break. If mounting beside of engine, it might malfunction by heat and vibration. ※Malfunction by heat and vibration is out of warranty. Be careful of it. ●Do not disassemble this product. It might cause of malfunction and break.

PACKING LIST

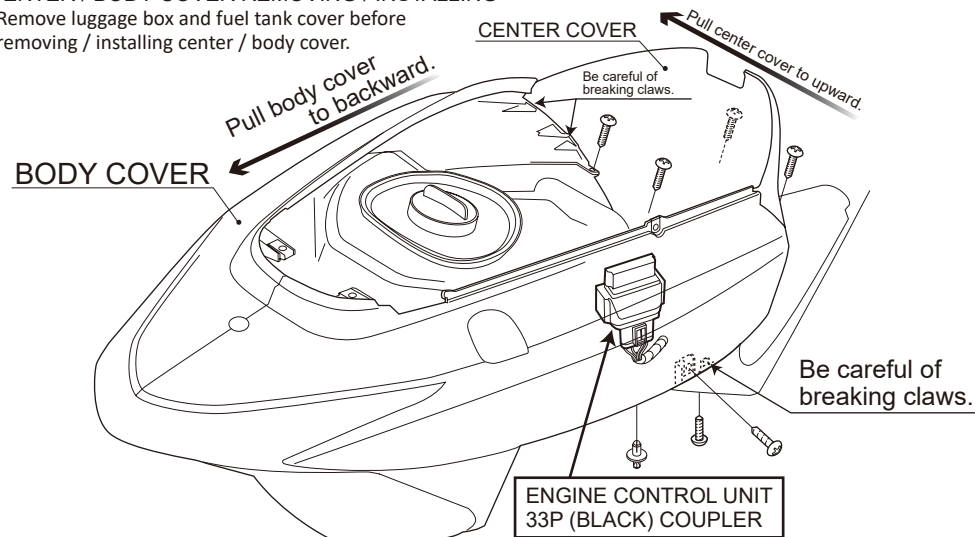| NAME	CODE	QTY
INJECTION CONTROLLER (i-map) Ver2.0		×1
HARNESS KIT		×1
BULLET (MALE) CA104	755-0900610	×10
BULLET (FEMALE) CB104	755-0900611	×10
SLEEVE (MALE/ROUND) P-2.5	755-0900640	×10
SLEEVE (FEMALE/ROUND) KS-2.5	755-0900641	×10
110 TYPE 6P COUPLER (MALE)		×1
OP : OPTION PARTS (SOLD SEPARATELY)		
PC INTERFACE CABLE	763-0500900	×1

HOW TO INSTALL

※Refer to the service manual when installation.

※Turn main switch to OFF. Disconnect battery (-) terminal when installation. If the power is ON, it might cause of break and trouble.

●Remove outer cowls.

●Connect Kitaco controller (i-map) to ECU (engine control unit). (Refer to the wiring diagram / other paper No.2)

●Install controller where to avoid rain, etc and not to prevent riding.

●Set up MAP by controller DIP switch.

●Make sure it works correctly, then put the outer cowls back in the reverse orderof installation.

※Refer to the trouble shooting in case of PGM-FI warning lamp is ON (Anomalydetection)

ECU (ENGINE CONTROL UNIT)
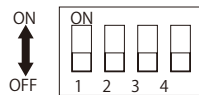
CENTER / BODY COVER REMOVING / INSTALLING
 Remove luggage box and fuel tank cover before removing / installing center / body cover.

CENTER COVER

Pull center cover to upward.

Be careful of breaking claws.

Pull body cover to backward.

BODY COVER

Be careful of breaking claws.

ENGINE CONTROL UNIT 33P (BLACK) COUPLER

Map SETTING

Set up MAP by DIP switch No,1~4.

DIP SWITCH

ON

OFF

ON
1 2 3 4

Application：Dio110（JF-31）				
Map- Switch	1	2	3	4
1	●	-	-	-
2	-	●	-	-
3	-	-	●	-
Original	-	-	-	●

●:Switch ON

Map-1 (SWITCH : 1) Rev limit 10000rpm Compatible with stock vehicle
Map-2 (SWITCH : 2) *1 Rev limit 10000rpm Compatible with KITACO GPR MUFFLER installed vehicle
Map-3 (SWITCH : 3) *1 Rev limit 11500rpm Compatible with 126cc BBK + KITACO GPR MUFFLER installed vehicle
Map-4 (SWITCH : 4) *1 User setting map range (Manual) *For making user MAP, INTERFACE CABLE that sold separately is required.
*1) Valve surging might occur because of rev limit setting. Do not ride with valve surging.

HOW TO REWRITE USER SETTING MAP
Connect PC interface cable to controller (i-map) main unit, then connect to computer.
Operate software (i-map/Fuel-manager) and edit MAP.
※Download software [i-map・Fuel-manager] from Kitaco website
(http://www.kitaco.co.jp) download service.
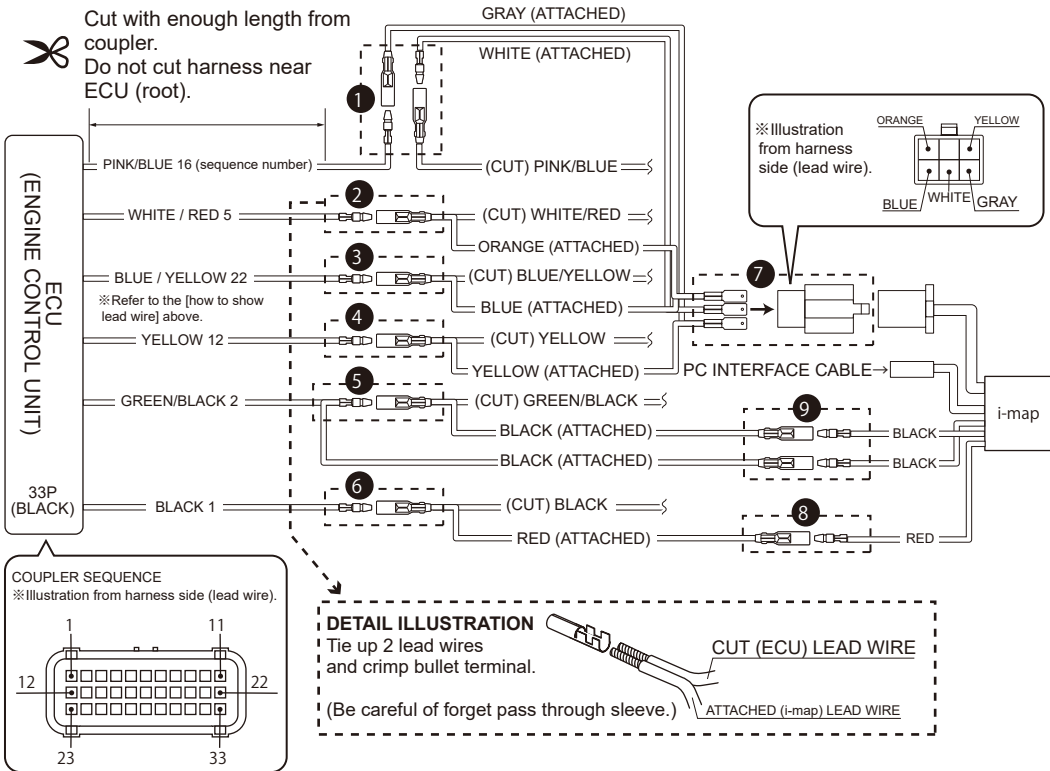After editing, remove PC interface cable and re-install it.

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●WIRING DIAGRAM

※Must to wrap vinyl tape, etc to connecting spot to waterproof treatment.

※When processing harness, remove stock harness protect tube and vinyl tape for extra, and keep enough length.

※In case of crimping terminal to lead wire, please use lineman's pliers (M hole shape). (Recommend to soldering after crimping to avoid missing terninal and connection failure. When soldering, be careful of melting surrounding harness cover, etc.)

※How to show 2 colored lead wire on wiring diagram.
ex) blue/yellow lead wire.

BLUE
YELLOW LINE

①~⑨ are user processing point. Refer to the below.

Cut with enough length from coupler.
Do not cut harness near ECU (root).

GRAY (ATTACHED)
WHITE (ATTACHED)

ECU (ENGINE CONTROL UNIT)

PINK/BLUE 16 (sequence number) ─── ❶ ─── (CUT) PINK/BLUE

WHITE / RED 5 ─── ❷ ─── (CUT) WHITE/RED
ORANGE (ATTACHED)

BLUE / YELLOW 22 ─── ❸ ─── (CUT) BLUE/YELLOW
BLUE (ATTACHED)

YELLOW 12 ─── ❹ ─── (CUT) YELLOW
YELLOW (ATTACHED)

GREEN/BLACK 2 ─── ❺ ─── (CUT) GREEN/BLACK
BLACK (ATTACHED)
BLACK (ATTACHED)

33P (BLACK)   BLACK 1 ─── ❻ ─── (CUT) BLACK
RED (ATTACHED)

※Illustration from harness side (lead wire).

ORANGE   YELLOW
BLUE   WHITE   GRAY

❼
PC INTERFACE CABLE→

❾   BLACK
BLACK

i-map

❽   RED

COUPLER SEQUENCE
※Illustration from harness side (lead wire).

1   11
12   22
23   33

DETAIL ILLUSTRATION
Tie up 2 lead wires and crimp bullet terminal.
CUT (ECU) LEAD WIRE
(Be careful of forget pass through sleeve.)
ATTACHED (i-map) LEAD WIRE

①	Cut stock ECU pink/blue harness, then crimp attached bullet terminal to cutting section. There is no specifying polarity of bullet terminal, please crimp with able to connect pink/blue harness combination on illustration. Then crimp bullet terminal to attached white and gray harness and connect as illustration.
②	Cut stock ECU white/red harness, then crimp attached bullet terminal to cutting section. There is no specifying polarity of bullet terminal, please crimp with able to connect white/red harness combination on illustration. The white/red harness on other side, crimp bullet terminal with attached orange harness. After finished crimping both sides, connect bullet terminal as illustration.
③	Cut stock ECU blue/yellow harness, then crimp attached bullet terminal to cutting section. There is no specifying polarity of bullet terminal, please crimp with able to connect blue/yellow harness combination on illustration. The blue/yellow harness on other side, crimp bullet terminal with attached blue harness. After finished crimping both sides, connect bullet terminal as illustration.
④	Cut stock ECU yellow harness, then crimp attached bullet terminal to cutting section. There is no specifying polarity of bullet terminal, please crimp with able to connect yellow harness combination on illustration. The yellow harness on other side, crimp bullet terminal with attached yellow harness. After finished crimping both sides, connect bullet terminal as illustration.
⑤	Cut stock ECU green/black harness, then crimp attached bullet terminal to cutting section. There is no specifying polarity of bullet terminal, please crimp with able to connect green/black harness combination on illustration. The green/black harness on other side, crimp bullet terminal with attached black harness. After finished crimping both sides, connect bullet terminal as illustration.
⑥	Cut stock ECU black harness, then crimp attached bullet terminal to cutting section. There is no specifying polarity of bullet terminal, please crimp with able to connect black harness combination on illustration. The black harness on other side, crimp bullet terminal with attached red harness. After finished crimping both sides, connect bullet terminal as illustration.
⑦	Insert attached harness orange/yellow/blue/gray/white flat terminal (male) to attached 110type 6pole coupler (male) as illustration. After processing, connect to i-map main unit side 110type 6pole coupler (female).
⑧	Crimp attached bullet terminal to i-map main unit side red harness and processed red harness, then connect. There is no specifying polarity on bullet terminal, recommend to crimp male terminal to i-map side harness not to expose bullet terminal when removing i-map.
⑨	Crimp attached bullet terminal to i-map main unit side black harness and processed black harness, then connect. There is no specifying polarity on bullet terminal, recommend to crimp male terminal to i-map side harness not to expose bullet terminal when removing i-map.

※Illustration from harness side (lead wire).

ATTENTION! (Must to check the connection again before ingnition key to "ON"!)
Check again the wiring before turning ignition key "ON". After finishing i-map wiring, check the wiring again before ignition key power "ON". If the power on with wiring mistake, warning LED lamp (PGM-FI warning lamp) is on. Also, it might cause of breaking this product and ECU (engine control unit). Be careful of it.

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TROUBLE SHOOTING

EX	Injector anormaly detection In case of i-map installed vehicle, PGM-FI warning lamp is flash when the injector anormaly detection is occur. Continues 0.5sec ON → 1.5sec OFF → 0.5sec ON → 1.5sec OFF ...
CAUSE	Main reasons of injector anomaly detection is missing coupler, disconnection, breaking injector, etc.
HOW TO DEAL WITH	○Follow the service manual to check. ○If there is a trouble not only the injector but also other places, remove i-map and put back to stock condition for check. HOW TO PUT BACK TO STOCK CONDITION 1) Remove type110 6P coupler and power supply harness (red, black) connecting to i-map. 2) Connect cut/processed pink/blue harness on wiring diagram ① again.