

REV CONTROL for MONKEY No.1

NO.764-1123100

APPLICATION : MONKEY/GORILLA FNO.Z50J-2000001 ~ /AB27-1000001 ~

SPECIFICATION

FORM	MAGNET + BATTERY TYPE CDI
MICROCOMPUTER	16bit CISC MICROCOMPUTER
SPARK TIMING MAP	8 POSITION x 2 (TABLE 1/POSITION 1 ~ 8 · TABLE 2/POSITION 1 ~ 8)
REV LIMITER	5 POSITION (12000/13000/14000/15000/16000)
POWER	BATTERY (DC12V)
OPERATING VOLTAGE	9V ~ 15.5V (RATED VALUE)
CONSUMPTION CURRENT	600mA (MAX)
OPERATING TEMPERATURE RANGE	-5°C ~ 60°C
SHIFTER CUT TIME	45msec (+55msec-35msec) VOLUME ADJUSTING TYPE WITH INDIVIDUAL ON/OFF SWITCH
INTAKE PRESSURE SENSOR	ABSOLUTE-VALUE DISPLAY ATMOSPHERE PRESSURE SENSOR
POSITION SELECTION	DIP SWITCH CHANGE-OVER SELECTION TYPE (6/8bit) REV LIMITER 1.2.3. IGNITION TIMING 6.7.8.
TABLE CHANGE-OVER	LEAD WIRE CONNECTING TYPE (WHEN CONNECTING APE 100/ XR MOTARD 100/NSF 100/MAGNA 50) (WHEN DISCONNECTING 12V MONKEY/12V GORILLA/APE 50/MOTARD 50)

- Read and understand the instruction before installing.

ATTENTIONS (MUST READ)

- Race use only. Note that racing parts are not covered under warranty.
- We are not responsible for damages and accidents caused by assembling mistake and improper setting.
- Follow the instructions and install correctly. Do not modify the way which is not listed, or it will cause damage and trouble.
- Ask a mechanic or a specialist at a specialty shop for assembling and setting if you do not understand the role of the surrounding parts.
- Refer to the HONDA service manual for each vehicle when installing.
- Bolts and nuts may get loosen by engine vibration. Make sure to check that each part of bolts and nuts are not loose before running.
- This product is designed for the specified models only.

CONTENTS

NAME	NUMBER	PCS	NAME	NUMBER	PCS
REV CON CDI UNIT	764-1123101	× 1	GROMMET(7.5 x 9 x 7.5)	752-9998099	× 2
SWITCH BOX COMP	764-1123102	× 1	LIGHTING HARNESS	754-0500074	× 1
NUT 6mm	001-0500006	× 2	BODY HARNESS	764-1123103	× 1
CAP BOLT M6 x 20	060-0500020	× 2	SWITCH BOX HARNESS	764-1123104	× 1
WASHER 6.5 x 16 x 1.6mm	090-0907006	× 4	SHIFT SENSOR HARNESS	764-1123105	× 1
6.2 x 7.5 x 7mm GROMMET COLLAR	093-0900003	× 2			

REV CON (DIGITAL CDI)

This REV CON includes 16bit micro computer. This 16bit micro computer have 8 types of spark timing map and 5 steps of rev limiter which you could set up separately into 40 different combination.

HAND SHIFT SYSTEM

You could shift up without clutch operation at full throttle (without closing down the throttle) by pushing the HAND SHIFTER SWITCH (OP). It is a function which cuts ignition instantly (10 ~ 100msec).

2 REVOLUTION, 1 IGNITION SYSTEM

MONKEY/APE usually ignites by magneto at ① before compression top dead center and ② before exhaust top dead center, each 360° flywheel revolution. ② is originally an unnecessary ignition since it is for exhaust. You could cut out this unnecessary ignition and make it ignite once (① only) for 2 revolution (720° flywheel revolution) by installing INTAKE PRESSURE SENSOR KIT (OP).

ADVANTAGE of this system

- While it only ignites once for 2 revolution at high rev, the power is charged longer than former, therefore the ignition is stronger than former.
- The power supplied from both battery and magneto brings out greater ignition.
- Spark plug lasts longer since it only ignites half time than former.

To prevent brakeage of CDI (microcomputer), it would automatically stop when it picks up unusual voltage which is caused by parts related to battery.

In case of this situation (when causing unusual voltage), you could avoid sudden trouble by turning off the battery power and use as for analog CDI .

ABOUT THIS PRODUCT

▼ ABOUT REQUIRED OPTION PARTS

FITTING KIT (OP special stay) is necessary when installing this CDI to 12V MONKEY.

Use stock muffler's mounting holes that is on the right side of MONKEY to install it.

This CDI fits with RIGHT SIDE COVER (OP).

Does not fit with stock muffler, up type muffler and oil catch tank.

There are some back steps that may not fit.

▼ OTHER OPTION PARTS FOR "2 REVOLUTION, 1 IGNITION SYSTEM" and "HAND SHIFT SYSTEM"

● 2 REVOLUTION, 1 IGNITION SYSTEM

○ INTAKE PRESSURE SENSOR KIT (OP) is necessary for the "2 REVOLUTION, 1 IGNITION SYSTEM" to recognize and control the intake negative-pressure. It requires to take out the negative-pressure from between the carburetor and cylinder head.

Add nipple on manifold, carburetor or cylinder head. (PWK28 CARBURETOR is already equipped with negative-pressure nipple)

○ Install with DRIVE MODULE (OP) since the tachometer will not activate properly for this system. This DRIVE MODULE is designed for KITACO tachometer.

● HAND SHIFT SYSTEM

Note that the gear may brake if transmission is not strengthen enough or when gear ratio differs remarkably or if it is high output engine because "HAND SHIFT" burdens transmission.

● CONTROL BOX

○ Make sure the power is off (main key off) when selecting spark pattern and rev limiter pattern.

This product recognizes spark timing and rev limiter position when you turn on the power.

Changing setting is not available when the power is on or during running. Shifter's cut time adjustment is adjustable any time.

○ Mount the control box with tie-band or both-sided tape where it does not get wet or dirty after setting.

It is recommended to give waterproof treatment with liquid gasket.

OTHER

Side stand safety system will not activate.

Battery is necessary for REV CON since it does not activate without battery.

Load battery (GT4B-5, YT4B-BS, FT4B-BS) if you are using for APE50/100, XR 50/100 MOTARD, NSF100.

Mount the CDI on the mud guard plate for APE or XR MOTARD.

ATTENTIONS

OPTION PART & OTHER RELATED PARTS

NAME	NO.	REMARKS	NAME	NO.	REMARKS
FITTING KIT	764-1123900	12V MONKEY/GORILLA	MUD GUARD XR MOTARD	682-1134000	XR MOTARD
INTAKE SENSOR KIT	764-1123110	2 REVOLUTION, 1 IGNITION	BATTERY		APE/XR MOTARD/NSF
DRIVE MODULE	768-0500900	2 REVOLUTION, 1 IGNITION	WIRE HARNESS FULL KIT	740-1418000	NSF100
RIGHT SIDE COVER	615-1123700	ABS RESIN (WHITE)	WIRE HARNESS KIT	740-1418100	NSF100
NIPPLE 4mm	-	INTAKE PRESSURE SENSOR	NUTSERT		NSF100
NIPPLE 5mm	0900-990-90006	INTAKE PRESSURE SENSOR	SPONGE SHEET		FOR MOUNTING
SWITCH	765-0500300	HAND SHIFT	TIE-BAND		FOR MOUNTING
MUD GUARD APE50	682-1122000	APE50	TOOLS/MATERIALS		FOR MODIFICATION
MUD GUARD APE100	682-1413000	APE100			

REV CONTROL for MONKEY No.2

NO.764-1123100

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INSTALLING REV CON

(Read the instructions "for MONKEY" and "for other models" when installing to NSF/APE/XR MOTARD.) for MONKEY

a) Remove battery, battery tray and CDI.
(Refer to WIRING DIAGRAM)

Connect body harness to CDI harness, lighting harness to rear stop switch coupler, body harness black lead wire to lighting harness black lead wire (female terminal ②).

※ You may have to switch the LIGHTING HARNESS wires (green/yellow and black lead wire) to match the wire color with the motorcycle.

b) (Refer to illustration of FITTING KIT)

Mount the stay of FITTING KIT (OP) and battery tray.

c) (Refer to WIRING DIAGRAM)

The table switch lead wire (yellow/green : terminal) of the sensor harness ③ needs to be connected or disconnected for each models.

DISCONNECT : MONKEY, GORILLA, APE50, XR 50 MOTARD
CONNECT : MAGNA50, APE100, XR 100 MOTARD, NSF100

Place the sensor harness ③ along the frame to the front of motorcycle and connect it with SHIFTER SWITCH (OP) and/or INTAKE PRESSURE SENSOR KIT (OP). Waterproof the connector of sensor harness and set it inside the stay of FITTING KIT if you are not installing SHIFTER SWITCH or INTAKE PRESSURE SENSOR KIT.

Do not remove the sensor harness ③ even if you are not using, since it may cause damage by water or dust.

※ The shifter switch activates with push type switch. (works when pushing, turns off when releasing)

d) (Refer to illustration of NIPPLE)

INTAKE PRESSURE SENSOR KIT requires nipple for the carburetors except PWK 28.

※ Use carburetor's nipple when using PWK 28 carburetor.

Install 4 ~ 5mm nipple between the carburetor and the cylinder head (manifold body).

Use tie-band or stay to mount and keep the sensor away from water, dirt or hot area (above 50°C).

e) The tachometer does not display properly when using "2 REVOLUTION, 1 IGNITION SYSTEM".

(except when using pickup coil's signal) DRIVE MODULE (OP) is required to display the tachometer properly. It may not activate with other manufacturer tachometer since it is designed for KITACO tachometer.

Connect DRIVE MODULE's black lead wire to the terminal of body's black lead wire (battery power supply). Connect green lead wire to the ground.

Cut the blue/yellow extension lead wire (800mm) in a proper length and connect it to the body's blue/yellow lead wire with use of an electro tap.

Connect blue lead wire to the pulse input lead wire with use of a terminal.

Place the DRIVE MODULE inside the headlight case by protecting it with a sponge.

f) (Refer to illustration of CONTROL BOX)

Open the control box to set each function.

Place the control box where you could set easily afterwards.

Fasten the control box with tie-band using the guide on the ends.

Make sure to keep it away from water, dirt or hot area (above 50°C).

Apply liquid gasket to waterproof the lid and close the control box after all setting is done. (shifter cut time, spark timing map, rev limit)

g) (Refer to illustration of FITTING KIT)

Connect each harness connector to the unit ⑤ and mount the unit to the stay of FITTING KIT with grommets. Install the battery and put all removed parts back together.

Install with RIGHT SIDE COVER (OP) if necessary. This side cover prevents the unit from theft.

for other models

h) Battery is required for APE50/100, XR 50/100 MOTARD, NSF100.

Applicable battery : GT4B-5/YT4B-BS/FT4B-BS

Wiring modification is required to input battery power supply (12V) to body's black lead wire.

(Refer to illustration of XR MOTARD REV CON CDI)

Mount the unit on the mud guard plate (metal) with grommets.

for NSF100

i) NSF100 requires WIRE HARNESS FULL KIT (OP).

Fits with WIRE HARNESS KIT (OP) when using without stock tachometer.

(Refer to WIRING DIAGRAM)

Prepare black lead wire with CB104/YAMAHA female terminal and 110 male flat terminal.

Connect 110 male flat terminal to the 6P coupler of conversion harness.

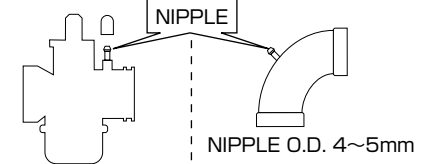
Otherwise connect to ACC. Make sure not to connect to the ground (green).

Cut off the CDI stay of stock meter stay.

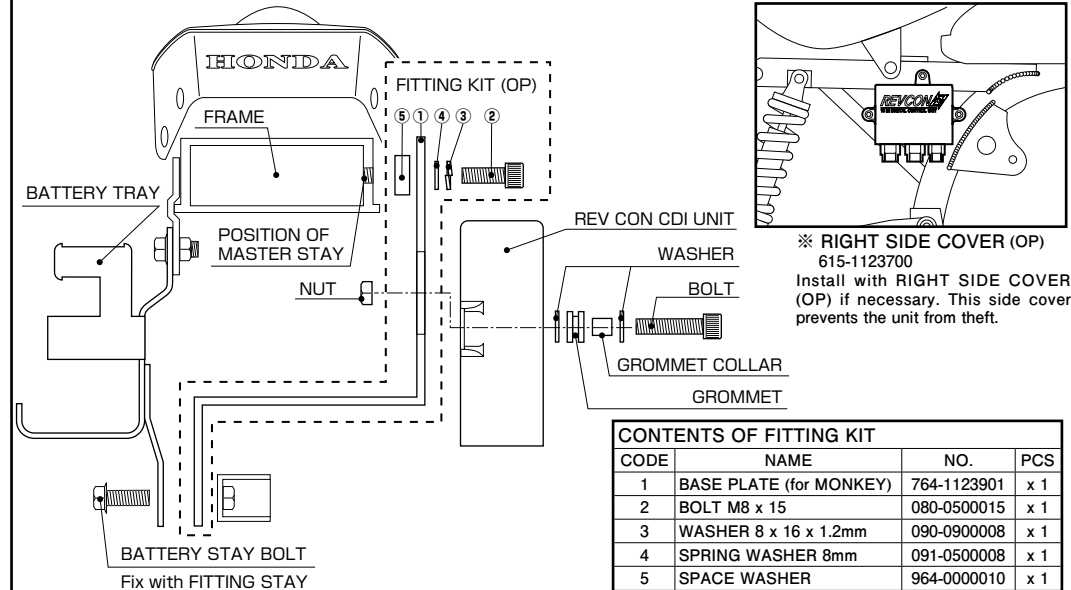
(Refer to NSF100 REV CON CDI)

Mount the unit to the bottom of the stay using nutserts (metal) and fix it with grommets.

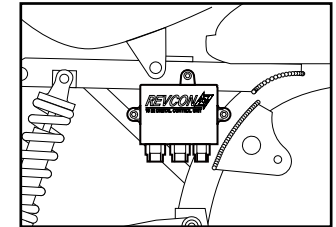
d) NIPPLE POSITION MANIFOLD ※ MODIFY
PWK 28 CARBURETOR (OTHER CARBURETOR)



b) MONKEY FITTING KIT (SECTIONAL VIEW OF WHEN INSTALLED)



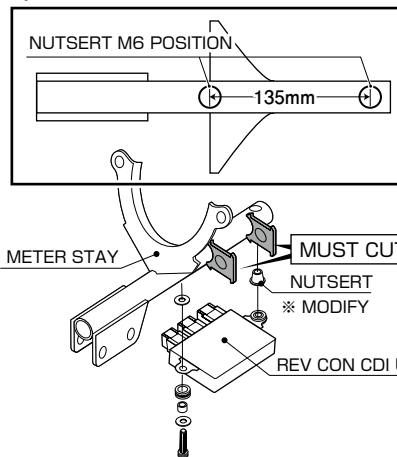
g) REV CON UNIT



※ RIGHT SIDE COVER (OP)
615-1123700
Install with RIGHT SIDE COVER (OP) if necessary. This side cover prevents the unit from theft.

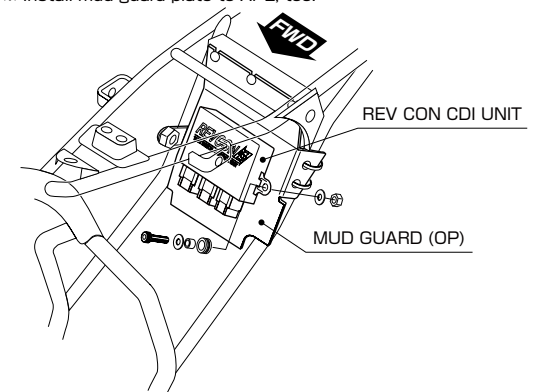
CONTENTS OF FITTING KIT			
CODE	NAME	NO.	PCS
1	BASE PLATE (for MONKEY)	764-1123901	x 1
2	BOLT M8 x 15	080-0500015	x 1
3	WASHER 8 x 16 x 1.2mm	090-0900008	x 1
4	SPRING WASHER 8mm	091-0500008	x 1
5	SPACE WASHER	964-0000010	x 1

i) NSF100 REV CON CDI



h) XR MOTARD REV CON CDI UNIT

※ Install mud guard plate to APE, too.



NOTE

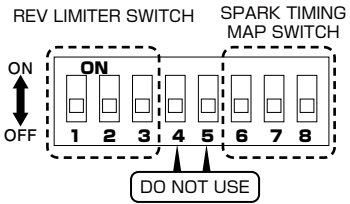
APE/XR MOTARD/NSF100 requires battery.
Applicable battery : GT4B-5/YT4B-BS/FT4B-BS

REV CONTROL for MONKEY No.3

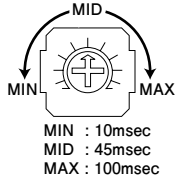
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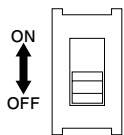
SETTING CONTROL BOX



SHIFTER CUT TIME ADJUSTMENT VOLUME SWITCH



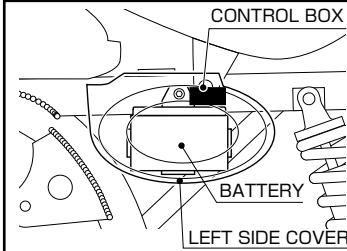
HAND SHIFT POWER SWITCH



HAND SHIFT LED LIGHT



CONTROL BOX (MONKEY)



SETTING CONTROL BOX

Set the rev limiter by switch No.1 ~ 3.
Set the spark timing map by switch No.6 ~ 8.
Do not use No.4 and 5.

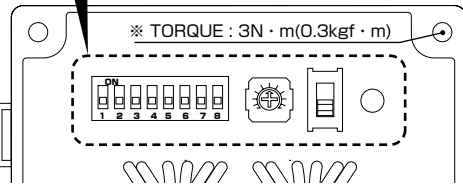
※ Make sure the power is off before you set.
Switch slowly with use of a driver.
The CONTROL BOX will recognize the spark timing and the position of rev limiter when the power turns on.
※ Changing setting is not available when the power is on or during running.

rpm	REV LIMITER			SPARK TIMING MAP			
	1	2	3	POSITION	6	7	8
12000	○			1	○	○	○
13000		○		2		○	○
14000	○	○		3	○		○
15000			○	4			○
16000				5	○	○	
				6		○	
				7	○		
				8			

○ = SWITCH ON

GUIDE

Use when fastening with tie-band.



※ Apply liquid gasket to the lid to waterproof and close the control box after all setting is done.

ADJUSTMENT AND OPERATION OF HAND SHIFT SYSTEM

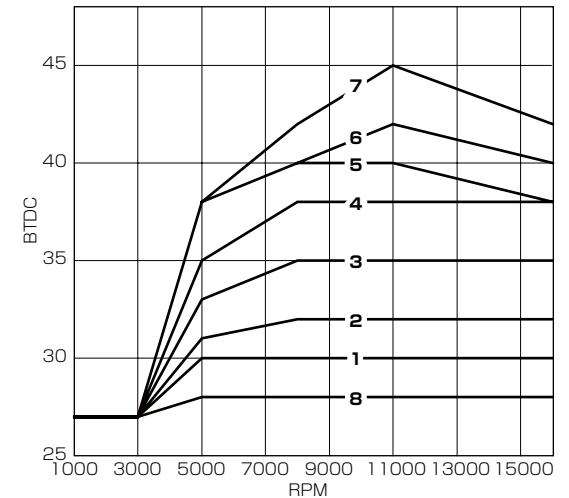
※ Shifter's cut time is adjustable when the shifter power (ON OFF switch) is whether on or off.
Turn the volume switch to adjust the shifter's cut time.
Cut time changes longer by turning right and shorter by turning left.
(Shortest : 10msec Longest : 100msec)
Make sure to set the proper cut time since it is different for each engine spec and type.
※ Make sure to operate carefully until you get used to it.
※ Readjust the cut time when the gear is not working right.
Do not force to operate or it may cause breakage.

Refer to the following spark timing map matching table and set the ON/OFF switch which is inside the control box.

SPARK TIMING MAP MATCHING TABLE

MONKEY type (for KITACO BIG BORE KIT)								APE type (for KITACO BIG BORE KIT) POSITION											
POSITION	1	2	3	4	5	6	7	8	LIMITER (RECOMMENDATION)	POSITION	1	2	3	4	5	6	7	8	LIMITER (RECOMMENDATION)
LIGHT75cc	○	△						△	12000rpm	LIGHT82cc		△	○	△					12000rpm
LIGHT88cc	○	△						△	12000	SPECIAL82cc		△	○	△					13000
STANDARD88cc			△	○	△				13000	ULTRA SE82cc				△	○	△			14000
ULTRA88cc				△	○	△			14000	LIGHT115cc	○	○	△						12000
ULTRA SE88cc					△	○	○		14000	ULTRA SE100cc		○	○	△					13000
STANDARD108cc	△	○	△						12000	ULTRA SE115cc		△	○	○	△				13000
ULTRA108cc	△	○	△						12000	ULTRA SE125cc	○	○	△						13000
ULTRA SE108cc	△	○	△						12000	SPECIAL130cc	○	△							12000
ULTRA SE124cc	○	○							13000	ULTRA SE145cc	○	○	△						12000
										DOHC125cc					△	○	○		15000
										DOHC145cc	○	○	△						13000

SPARK TIMING



SPARK TIMING MAP

POSITION	1	2	3	4	5	6	7	8
3000rpm/BTDC	27	27	27	27	27	27	27	27
6000rpm/BTDC	30	31	33	35	38	38	38	28
9000rpm/BTDC	30	32	35	38	40	40	42	28
12000rpm/BTDC	30	32	35	38	40	42	45	28
15000rpm/BTDC	30	32	35	38	38	40	42	28
MAXIMUM ADVANCE rpm	5000	8000	8000	8000	8000	11000	11000	3500

REV LIMITER

POSITION	1	2	3	4	5
rpm	12000	13000	14000	15000	16000

SHIFTER CUT TIME (when using PUSH SWITCH)

VOLUME POSITION	MIN	MID	MAX
CUT TIME msec	10	45	100

2 REVOLUTION, 1 IGNITION SYSTEM

SYSTEM ON (rpm)	5000
SYSTEM OFF (rpm)	4000

(Only when recognizing INTAKE PRESSURE SENSOR)

REV CONTROL for MONKEY No.4

NO.764-1123100

APPLICATION : MONKEY/GORILLA FNO.Z50J-2000001 ~ /AB27-1000001 ~

WIRING DIAGRAM

- ※ Make sure to waterproof the couplers and connected parts with a vinyl tape.
- ※ Use electrician's plier (M TYPE) to crimp the terminal to the lead wire.

