

10) Installation of carburetor setting parts (Endurance races, Sprint races kit)

For other than the items described in this manual, refer to the Service Manual of your basic vehicle.

① Basic carb. settings for race

- These settings apply to a case where an induction box is installed.

Carburetor	Model FCRD39 (KEIHIN)	
Main jet (M.J.)	# 175 (1-, 4-cylindere), # 165 (2-, 3-cylindere) *	(# 140) (# 145) (# 150) (# 155)
Main air jet (M.A.J.)	# 100	(# 160)
Pilot jet (P.J.)	(# 48), # 50, (# 52)	(# 170)
Pilot air jet (P.A.J.)	(# 130), # 140	(# 180)
Jet needle (J.N.)	OBEMQ-3 (3th notch), (OBEMP), (OBEMR)	(# 185)
Needle jet (N.J.)	Non-bleed type	(# 190)
Pilot screw (P.S.)	1-1/2	(# 195)
Float chamber set	* Used with the main jet as a set.	

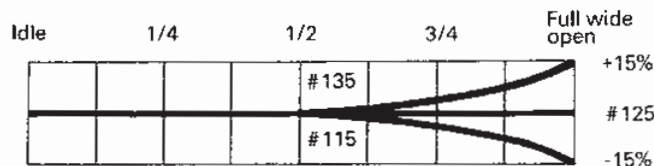
CAUTION:

- ☆ The carburetor is an apparatus using gasoline. Installation of the carburetor must be carried out in a safety place without flammables and with good ventilation.
- ☆ The carburetor is apt to be easily damaged by foreign matters (dust, sand, water, etc). When installing or adjusting the carburetor, be careful not to allow such foreign matters to enter the carburetor.
- ☆ Carefully handle the carburetor and its parts. Many of the carburetor components fail to fulfill their original functions even if they are slightly flawed, bent or damaged. Carefully carry out servicing using the proper tools without using excessive force.
- ☆ After installing the carburetor on your vehicle, be sure to thoroughly check that the throttle is normal and opens and closes smoothly.
- ☆ Avoid carelessly looking into the carburetor suction pipe during engine running. Flames may blow out due to backfire. Even after the carburetor is removed, gasoline may spout out from the accelerator pump nozzle.
- ☆ Avoid unnecessarily opening and closing the throttle valve when the engine is stopped or running under no load, or the engine may fail to start easily or run smoothly due to the excessive fuel discharge of the accelerator pump.
- ☆ If the density becomes too high when accelerating, make a modification so that the right acceleration pump will not be operated.

② Effective range of settings of carburetor components

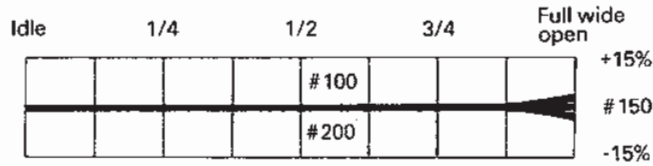
(1) Main jet

The main jet mainly adjusts the density around the full wide opening.



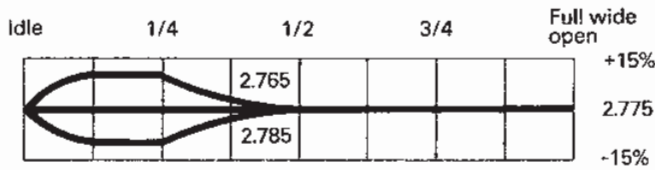
(2) Main air jet

For the primary type main system, the main air jet does not work very effectively. Therefore, it is not usually replaced.



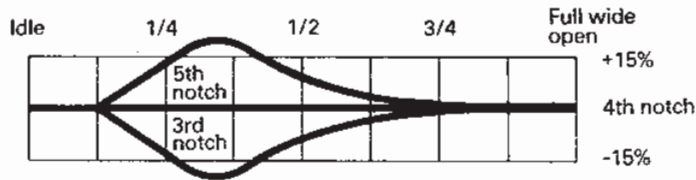
(3) Jet needle (straight diameter)

Adjust the air fuel ratio around the 1/8 opening to 1/4 opening.



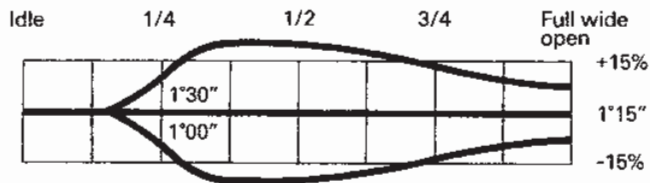
(4) Jet needle (No. of notches)

Adjust the air fuel ratio around the 1/4 opening to 1/2 opening.



(5) Jet needle (taper)

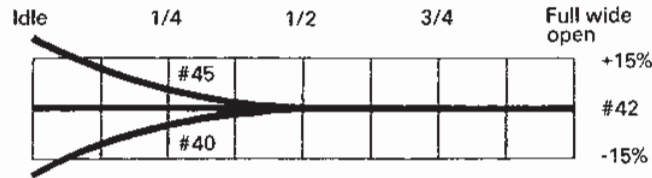
The jet needle with moderate taper affects the density as far as around the full wide opening. To change the density only around 1/2 opening, replace the jet needle together with the main jet.



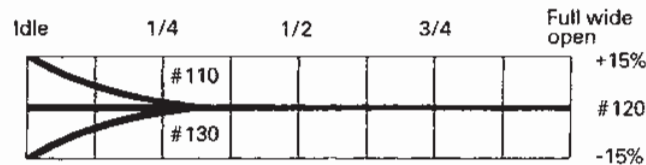
<Jet needle specifications>

J.N	Straight diameter	Taper
OBEMP	ϕ 2.735	1"00'
OBEMQ	ϕ 2.745	↑
OBEMR	ϕ 2.755	↑

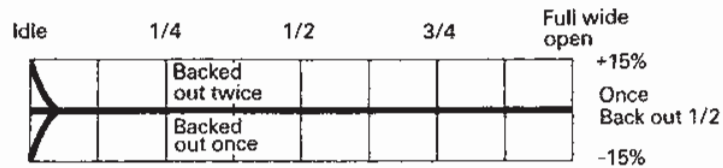
- (6) Pilot jet
The pilot jet affects the entire slow system.



- (7) Pilot air jet
The pilot air jet affects the density from idle as far as the 1/4 opening in the same manner as the pilot jet.



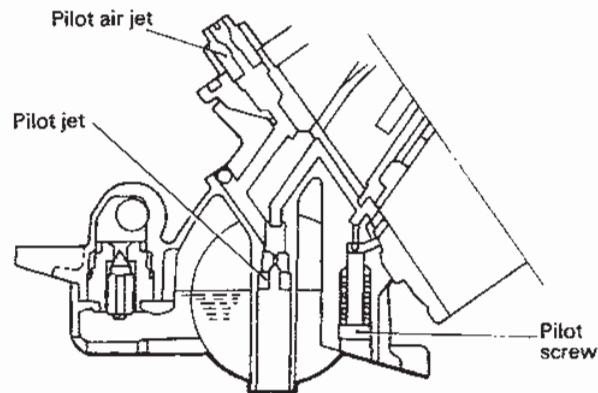
- (8) Pilot screw
The pilot screw covers only around the idle opening.
This will be explained on the next page.



- **Construction of slow system and setting parts**

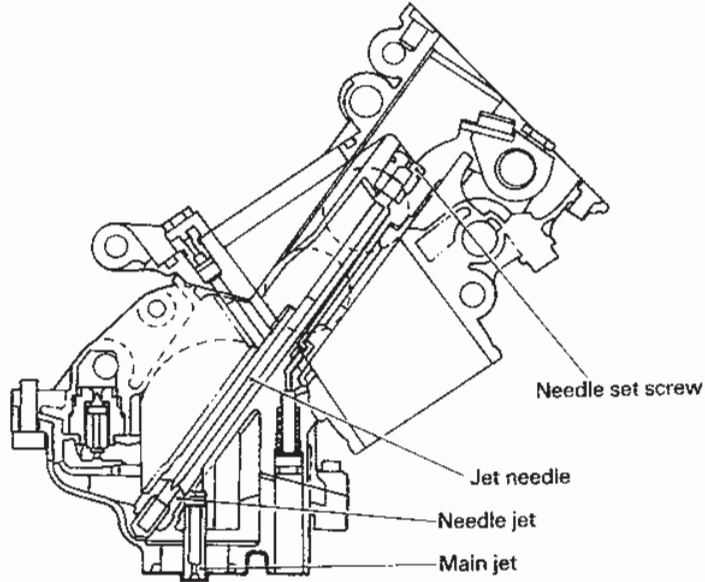
In the flat CR carburetor, the slow system is equipped with a "pilot screw type" adjusting mechanism when the machine is shipped. The characteristic of this method is that the effective adjusting range of the pilot screw is limited to around the idle opening. Therefore, even if the adjusting value is largely changed, it will not affect the actual running openings of 1/8 to 1/4.

To set the actual running range for the slow system, the pilot screw is not used but the pilot jet and pilot air jet should be adjusted while observing their balance.



- **Construction of main system and setting parts**

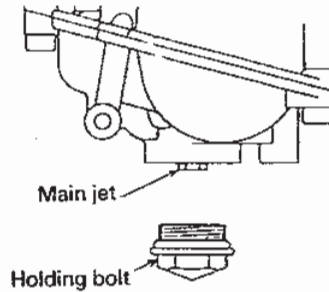
In the main flat CR carburetor, a "primary type" main system is used. This system features a good flow even during full-load running and the best use as a racer. However, the construction of the main air jet little affects the air fuel ratio. These settings are made by the main jet and jet needle.



③ Replacing setting parts

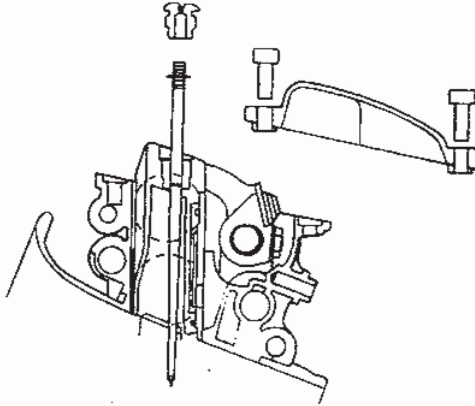
1. Main jet (M.J.)

- (1) Remove the holding bolt at the bottom of the float chamber.
- (2) The head of the main jet should appear. Remove the main jet with the spanner.
- (3) Installation of the main jet is the reversal of the removal.



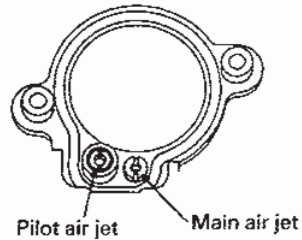
2. Jet needle (J.N.)

- (1) Remove the top.
- (2) Remove the needle set screw using the flat-blade screwdriver. With the engine installed, the throttle grip should be kept almost fully open to facilitate operation.
- (3) Draw out the jet needle using the long-nose pliers.
- (4) Installation of the jet needle is the reversal of the removal. Check that the end of the jet needle is reliably inserted into the needle jet hole.



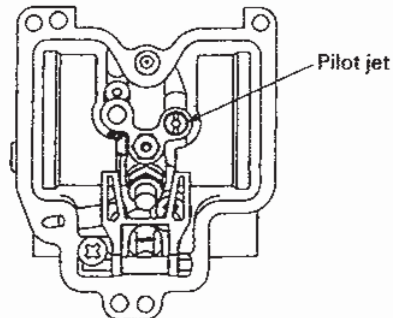
3. Air jets (M.A.J., P.A.J.)

These air jets are installed on the front of the carburetor intake side (funnel side). Be careful not to confuse the main air jet with the pilot air jet .



4. Pilot jet (P.J.)

- (1) Remove the float chamber body. Since the accelerator pump connection hose is assembled, all the connected parts should be removed at the same time to facilitate operation. When removing the float chamber, be careful not to apply excessive force to the float and accelerator pump rod.
- (2) Remove the pilot jet using a small flat-blade screwdriver (4 to 5mm wide).
- (3) Installation of the pilot jet is the reversal of the removal.
- (4) Before assembling the float chamber, check that the float chamber packing is reliably put in the groove.



11) Air induction box

