

Thank you for purchasing this product. Please read the instruction carefully for details prior to installation.

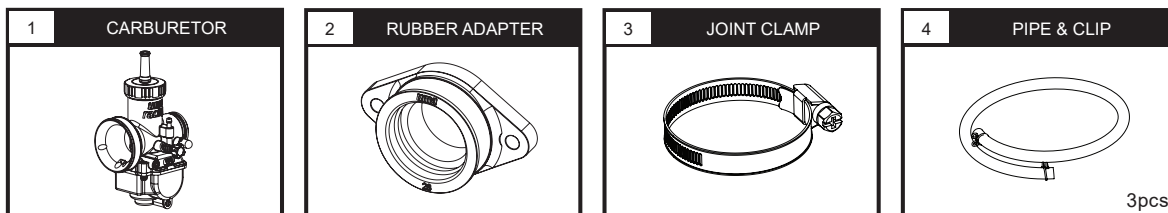


### ATTENTION

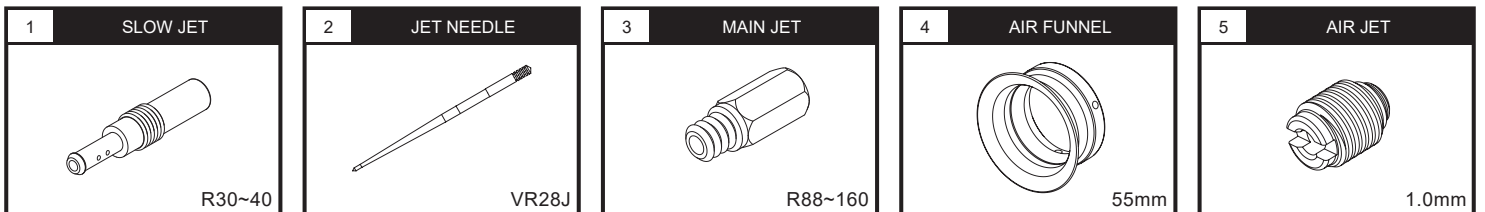
- NO FIRE!** Stay clear and away from open flames to avoid unwanted fire during the course of assembling or disassembling the carburetor as fuel is highly flammable.
- INSTALLATION CAUTION!** Ensure all parts with screws or fasteners are tightened properly before switching engine ignition on.

- Upon installation make sure the environment is clean as it may affect its precision.
- We shall not be held liable and shall not accept any liability, obligation or responsibility whatsoever for any damage on the item during assembly and disassembly.
- Consider variables such as air pressure, temperature, humidity and height above sea level when tuning the carburetor as it may affect its performance.
- Please seek professional help or advice if you have any doubts.

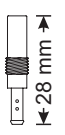
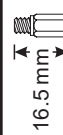
## 1 PARTS INCLUDED



## 2 OPTIONAL PARTS



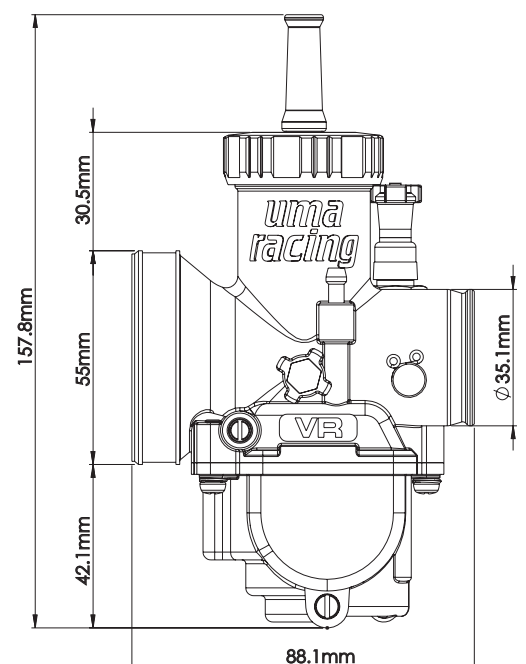
### 2-1 OPTIONAL PARTS SPECIFICATION

1 SLOW JET	2 MAIN JET
 28mm R30 R32 R34 R36 R38 R40	 16.5mm R88 R102 R116 R130 R144 R158 R90 R104 R118 R132 R146 R160 R92 R106 R120 R134 R148 R94 R108 R122 R136 R150 R96 R110 R124 R138 R152 R98 R112 R126 R140 R154 R100 R114 R128 R142 R156

















## 3 DEFAULT SETTING

Carburetor	Ø 28
Air Adjust Screw	1
Slow Jet	R40
Throttle Valve	4.0

Jet Needle Setting	VR28J
Main Jet	R118
Air Jet	1.0mm



# 3-1 BASIC KNOWLEDGE & ADJUSTMENTS

Air adjustment screw <b>Lean</b>  <b>Rich</b>	Turning the adjustment screw in (clockwise) makes for a rich mixture, turning it out for a lean one.						
Idle jet 	The bigger the jet, the richer the mixture						
Throttle valve angle	The smaller the angle of the throttle valve the richer the mixture						
Needle jet							
Jet needle setting 	There are five options per needle, the higher the number, the richer the mixture						
Mainjet 	The bigger the mainjet, the richer the mixture.						
		Close	1/8	1/4	1/2	3/4	Open
							

### 1. For throttle closed to one quarter throttle opening.

- Change idle jet to adjust mixture.
- Set air adjustment screw to adjust mixture.

### 2. From one quarter throttle opening to three quarter throttle opening.

- Adjust needle position

### 3. From three quarter throttle opening to full throttle.

- Change main jet to adjust mixture.

### 4. Half throttle to full throttle (high airspeed in the carburetor)

- Adjust mixture by changing main jet, jet needle or jet needle setting.
- Make sure to inspect the spark plug to check whether the setting is correct. (see 3-2 for details)

# 3-2 ADJUSTING NOTE & TROUBLESHOOTING GUIDE

- Basic jetting of the air screw is fully in, then turn 1 and a half turns out. If engine runs rich or lean try to adjust with airscrew, if this cannot be done within a few turns of the screw, change the idle jet.
- If mixture is too rich between closed and half throttle, and if this cannot be rectified with the air adjustment screw, go for a smaller idle jet.
- Running our engine too rich will result in your engine not running at its best, running it too lean will eventually damage your engine's components such as piston, cylinder and head. We therefore recommend starting on the rich side when you set up your engine and work your way down to the proper setting.
- Check and read the spark plug to learn about the mixture your engine requires.
  - If spark plug is black or even wet, your engine runs too rich. Unburnt fuel causes soot to build up on the spark plug. Go for a leaner setting, use smaller jets.
  - Spark plug is dry and grey or even white, your engine runs lean. This may lead to damage of spark plug due to overheating. go for a richer setting, use larger jets.
  - The spark plug is brown and looks clear, mixture is as it should be.
- When changing to a larger mainjet, it will affect your engine's performance at half to full throttle. Always change one factor at a time and assess the changes this has made to the engine's performance before changing something else.



## 3-3 THE ENVIRONMENT FACTOR

Environment	Mixture situation	Adjust advise
High Temperature	Rich	Lean
Low Temperature	Lean	Rich
High Humidity	Rich	Lean
Low Humidity	Lean	Rich
High Altitude	Lean	Rich

Problem	Mixed Air State	Adjusting method	Note
When idling a. Engine runs erratic. b. Rpm is not stable.	Lean	a. Turn airscrew in clockwise to make mixture richer. b. Change to a bigger idle jet. c. Change to a smaller diameter needle to make mixture richer.	a. There is a possibility that a reed petal is broken. b. There may be an air-leak in the inlet tract.
When idling a. The engine stalls. b. Exhaust fumes are black.	Rich	a. Turn airscrew out anti clockwise to make mixture leaner. b. Change to a smaller idle jet. c. Change to a larger diameter needle to make mixture leaner.	
When accelerating a. Poor acceleration	Lean	Change to a bigger mainjet.	
When accelerating a. Engine runs erratic	Rich	Change to a smaller mainjet	
Between closed throttle and one quarter throttle opening a. Engine stalls and does not pick up revs.	Lean	a. Go for a thinner needle to make the mixture richer. b. Turn the airscrew in clockwise to make the mixture richer.	
Between closed throttle and one quarter throttle opening a. Acceleration is hesitant or irregular	Rich	a. Go for a bigger needle to make mixture leaner. b. Turn the screw out anti clockwise to make mixture leaner. c. If above step a or b doesn't solve the problem try a smaller idle jet.	This may happen in rainy conditions in particular, pay attention to the engine temperature and humidity of the surrounding air.
Between one quarter and half throttle a. Engine brakes b. Engine bogs	Lean	Change the needle jet to a bigger one to make the mixture richer.	Please check 3-1 Basic knowledge & Adjustments
Throttle between a quarter and half open a. Acceleration is bad	Rich	Change the needle jet to a smaller one to make mixture leaner.	Please check 3-1 Basic knowledge & Adjustments
Throttle is fully open a. Rpm changes erratically b. Engine Pings, Detonation c. Spark plug is dry and white	Lean	Change the mainjet to a larger one (Remember spark plug should be brown)	a. Ignition could be out, that is: to much advance b. There may also be an airleak in the inlet tract
Throttle is fully open a. Engine speed rises slowly b. Engine feels flat c. Spark plug is black	Rich	Adjust mixture by using a smaller mainjet. Keep checking spark plug until colour is correct.	Air filter could be blocked. Also ensure the choke is not stuck.
Rapid throttle opening	Rich,lean	Check all parts involved as described above, take your time, don't rush things.	Make sure this is not caused by a broken reed petal or an air-leak in the inlet tract.

