



Gen II Four Stroke Quick Start Guide

First Start Up Procedure:

- 1) Turn your fuel valve on and fill the float bowl. If you have an auto shutoff fuel valve, turn your valve to prime and fill the bowl. If you have an auto shutoff and it does not have prime then you must turn the engine over till the float bowl fills (this takes only a few revolutions).
- 2) Now that the float bowl is full, turn your ignition on and pull the choke lever out to full. While holding the throttle open about $\frac{1}{4}$ turn start the engine, it should start within a few revolutions.
- 3) Use the throttle to keep the engine running if needed for about 20 - 30 seconds, then slowly close the choke and let the bike idle on its own. If the engine will not stay idling turn up the idle screw $\frac{1}{4}$ to $\frac{1}{2}$ a turn but no more.
- 4) Your Gen II 4 Stroke Lectron should idle around 1700 RPM. Adjusting it lower could cause an inconsistent idle RPM.
- 5) Turn your engine off and gear up for a ride. After a few minutes of riding and your bike is at operating temperatures, you may need to readjust your idle for a final time.
- 6) For additional assistance when tuning the air-fuel ration and 4-stroke idle.

Normal Starting Procedure:

- 1) Choke + some throttle when cold
- 2) No Choke + no throttle when warm

Frequently Asked Questions

Q: Can my Lectron be mounted at an angle?

A: Yes! Lectrons can be mounted at up to a 30° angle and tilted sideways up to a 5° angle.

Q: How much should I have to adjust my metering rod?

A: Do not adjust your metering rod without calling Lectron.

Q: How much should I have to adjust my mixture screw?

A: No more than $\frac{1}{8}$ th turn in either direction. If you do, call us.



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Basic Starting Points for 4 Stroke Carbs Running Standard Fuels

Metering Rod:

Carbs come pretuned from the factory, and you should not have to adjust the rod. Before making a rod adjustment, call or email Lectron.

<u>Carb Size</u>	<u>Idle Screw*</u>	<u>Mixture Screw Tuning Range*</u>
36mm	1 3/4	7/16-9/16
38mm	2	7/16-9/16
40mm	2 1/4	7/16-9/16

*Measured in turns from seated

Cable Install and Adjustment Guide

Step 1

Thread your throttle cable into your throttle assembly. Leave about two threads showing so you will have some on-the-fly adjustment available. Liberally apply white lithium grease to the barrel of the cable and any contact points. Press the barrel into the throttle tube or grip cam.

Step 2

Route your cable in a way that avoids any snagging or binding. You may need to use loose zip ties or other guides. Below are some routing options.

Standard Length Cables	Long Cables
Behind the bars, right side of the frame	In front of the bars, left side of the frame
Behind the bars, left side of the frame	Behind the bars, left side of the frame (with risers)
In front of the bars, right side of the frame	

Step 3

Thread your throttle cable into the top cover of your carburetor. Feed the inner cable through the top cover, the top cover gasket, the spring, and seat it in the slide. Reinsert the slide assembly into the carburetor, install the top cover screws, and mount the carburetor.

Step 4

Using the main adjuster, remove the excess slack from your cable. Cables are not pre-adjusted from the factory. Turning the adjusters out and exposing the threads will shorten the inner cable length and remove the slack. While looking through your airbox, turn the adjusters out and watch for the slide to move. When you see it begin to rise, all the slack has been removed from the cable. Turn the adjuster back 2-3 turns (lessening the amount of visible threads) and save the adjustment by tightening the lock nut.



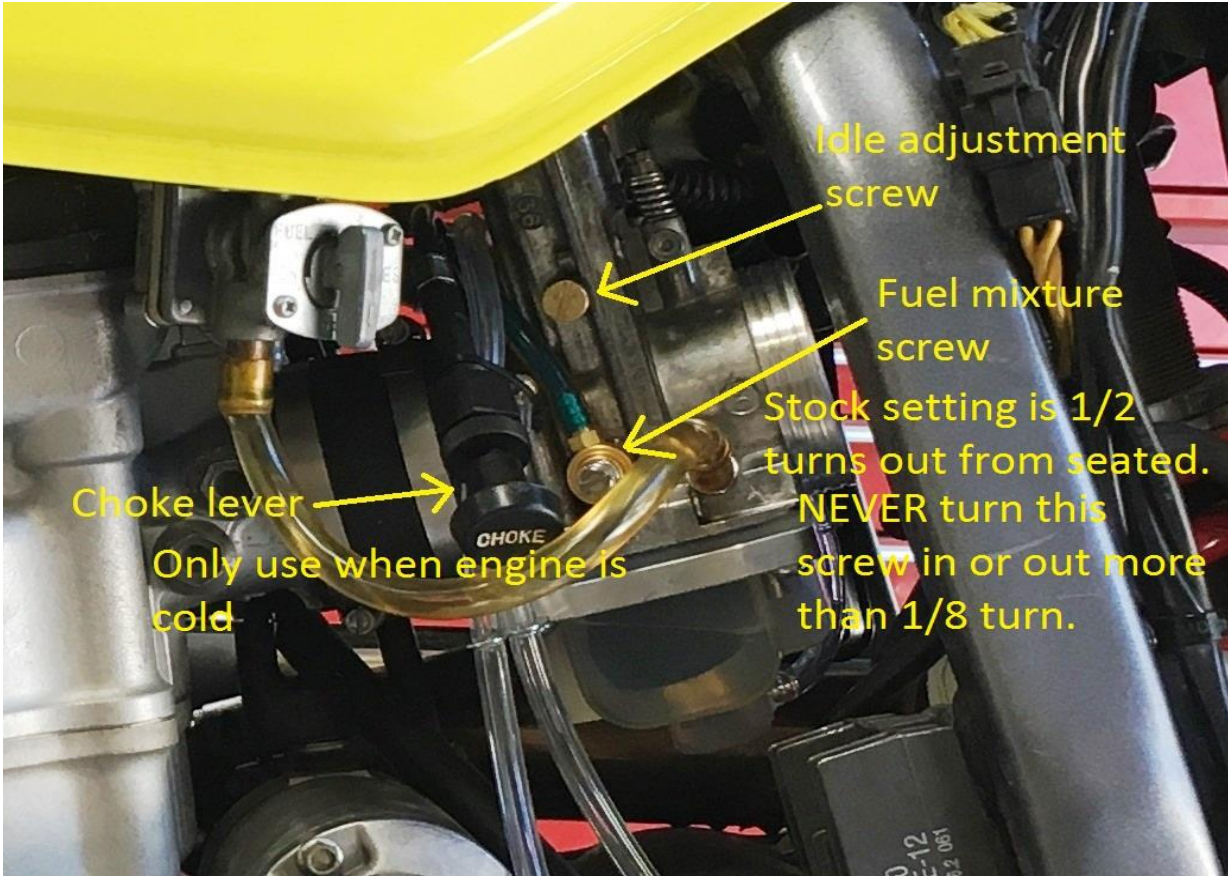
Step 5:

Reinstall your body work. With the bike idling in neutral, turn the handle bars from lock to lock. Look for any places where the cable gets tight and listen for any RPM increase. If this happens, consider routing your cable another way.

Step 6 (optional):

To check your slack, remove the top cover from your throttle assembly and screw in the bolt that holds the top cover on. You may need to use a small washer to hold the wheel in place. Twist your throttle from closed, to wide open, to closed again. There should be a small amount of slack, but not enough to make the cable rub on the inside of the throttle housing.



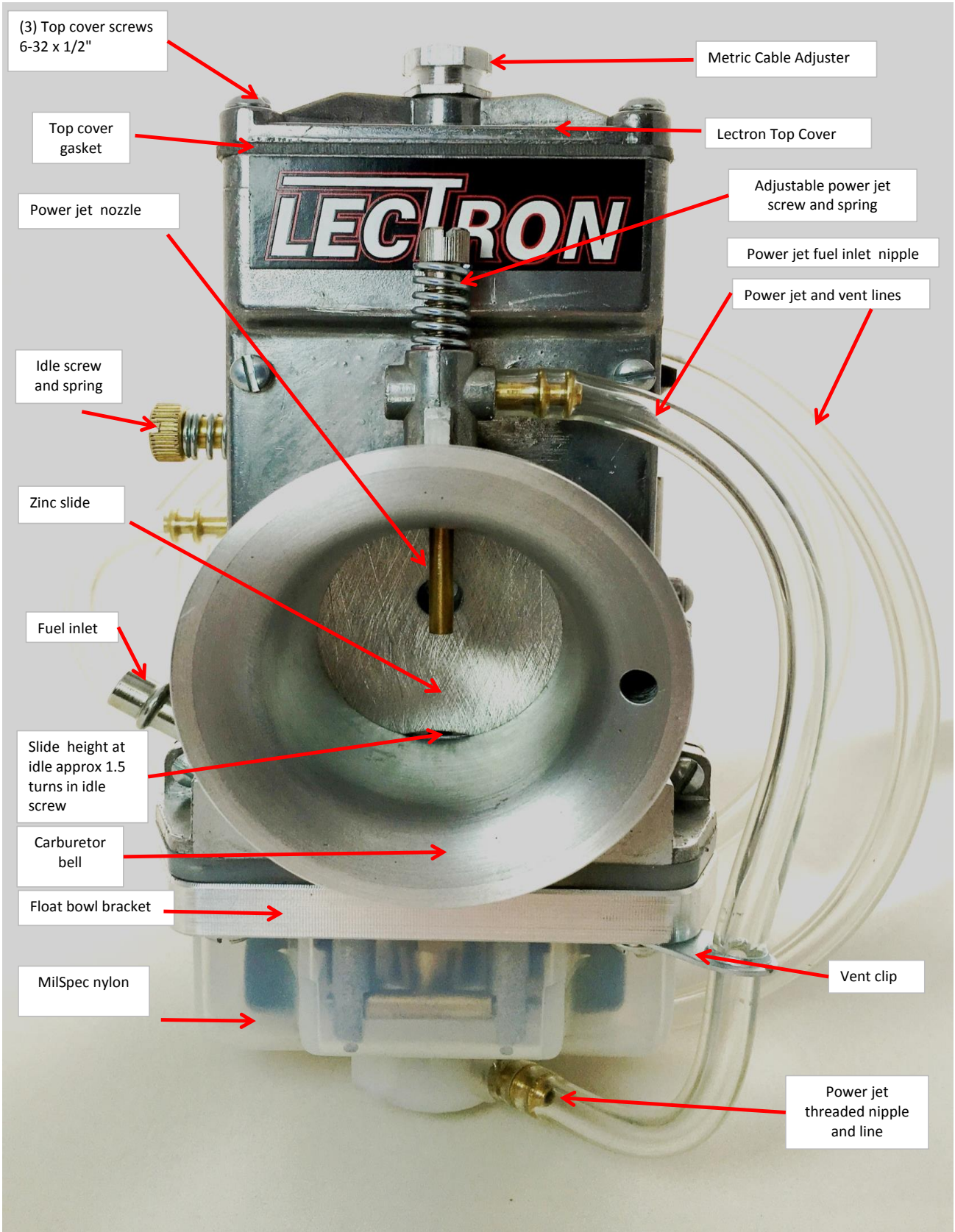


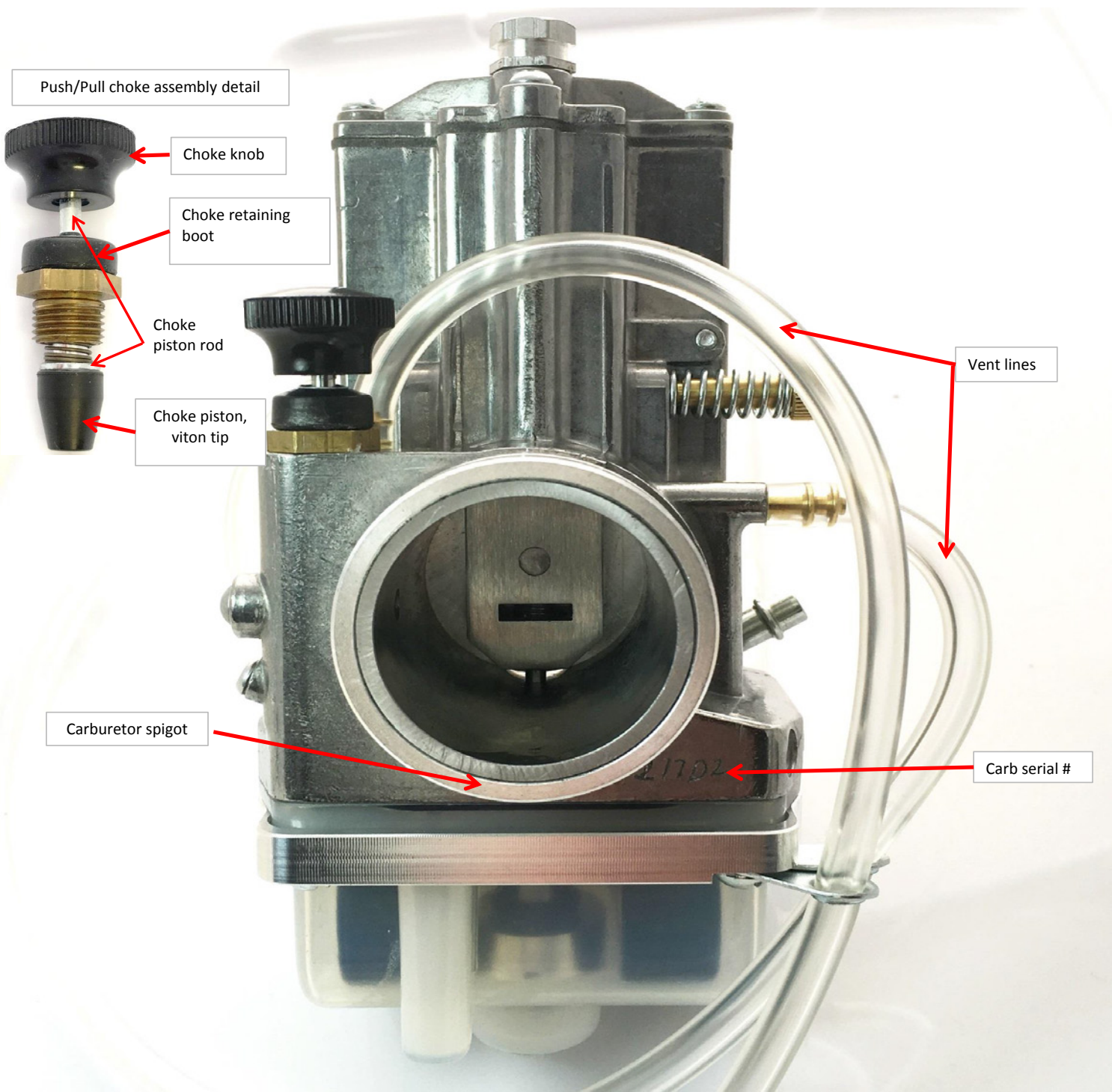
Choke lever
Only use when engine is cold

Idle adjustment screw

Fuel mixture screw

Stock setting is 1/2 turns out from seated. NEVER turn this screw in or out more than 1/8 turn.





Push/Pull choke assembly detail

Choke knob

Choke retaining boot

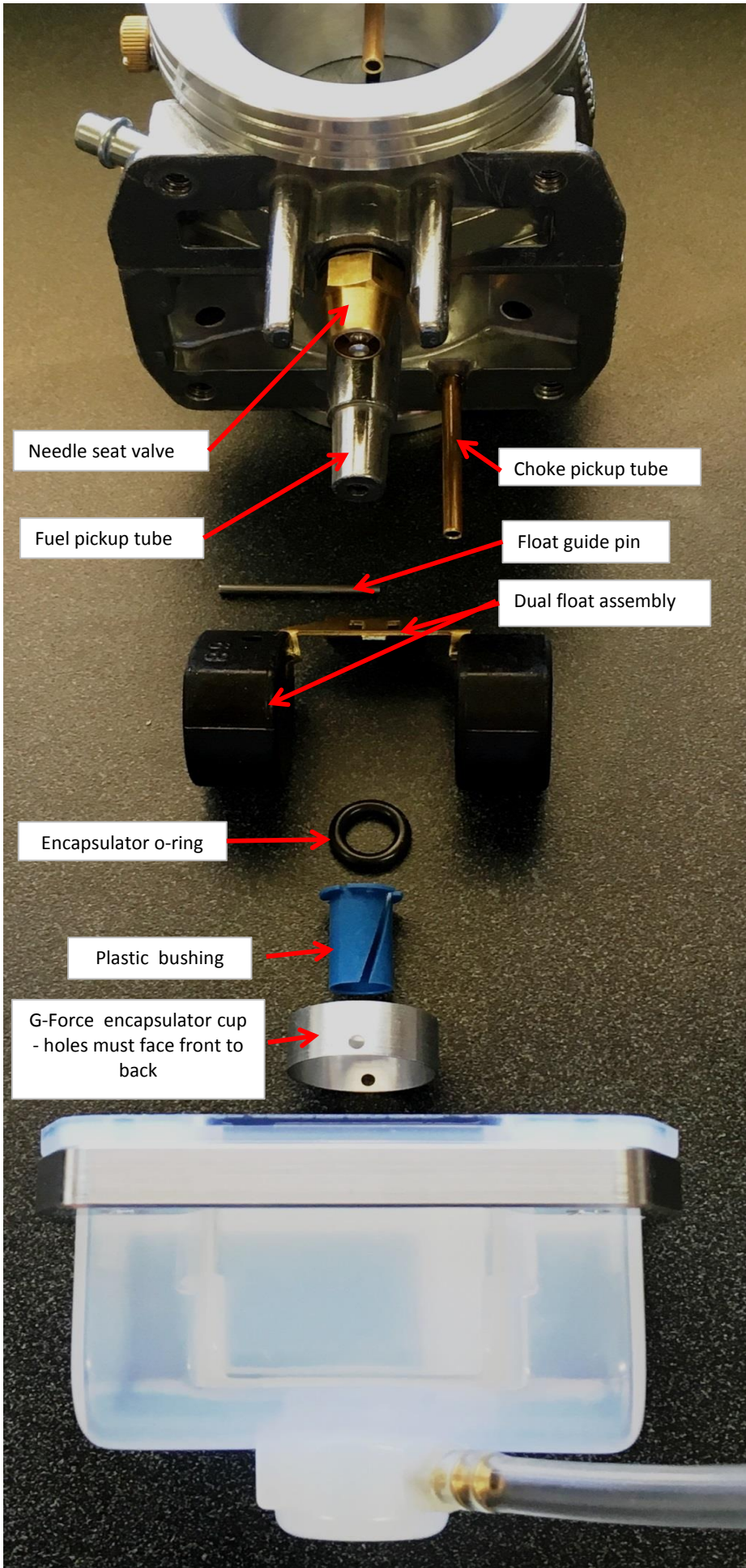
Choke piston rod

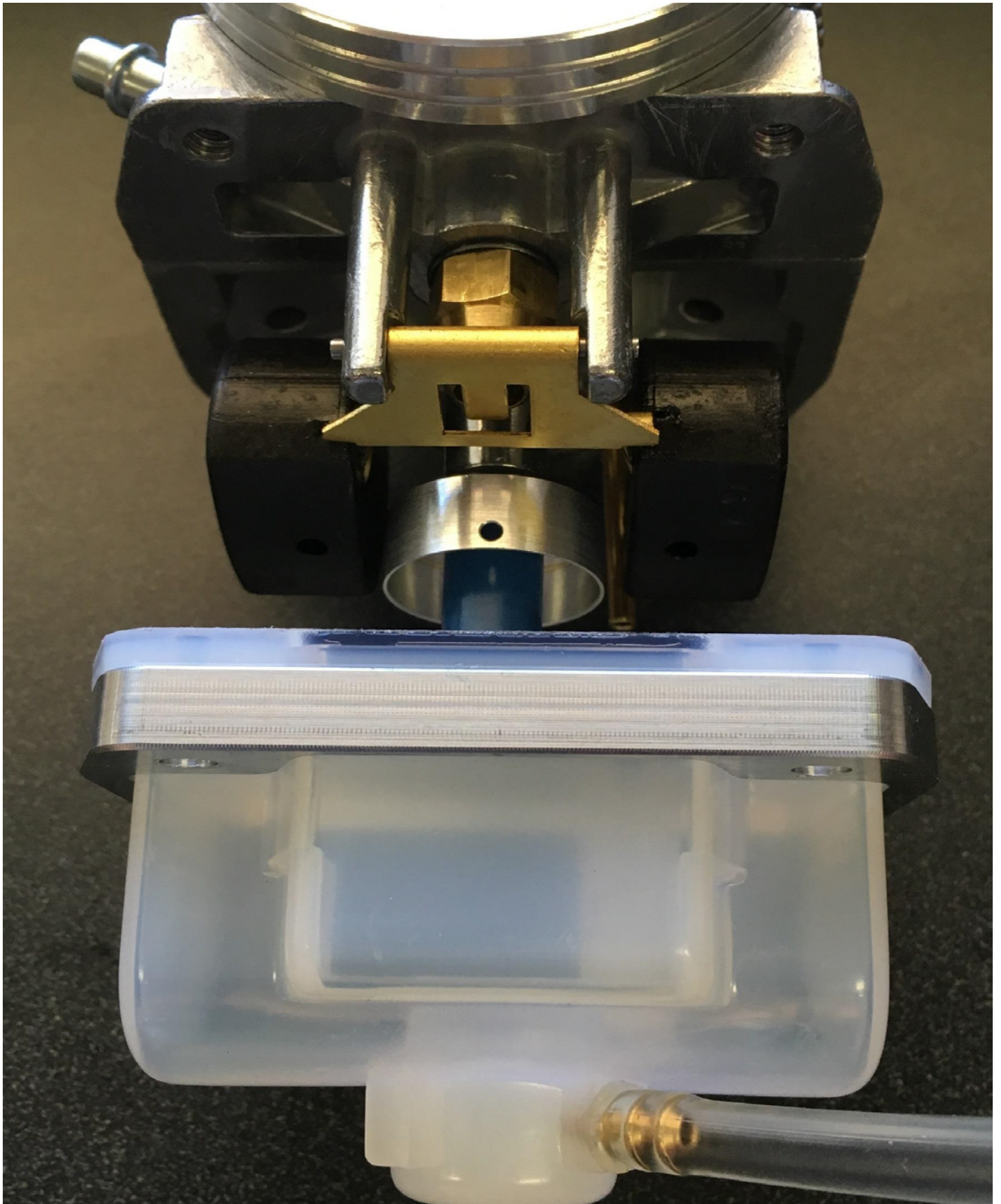
Choke piston, viton tip

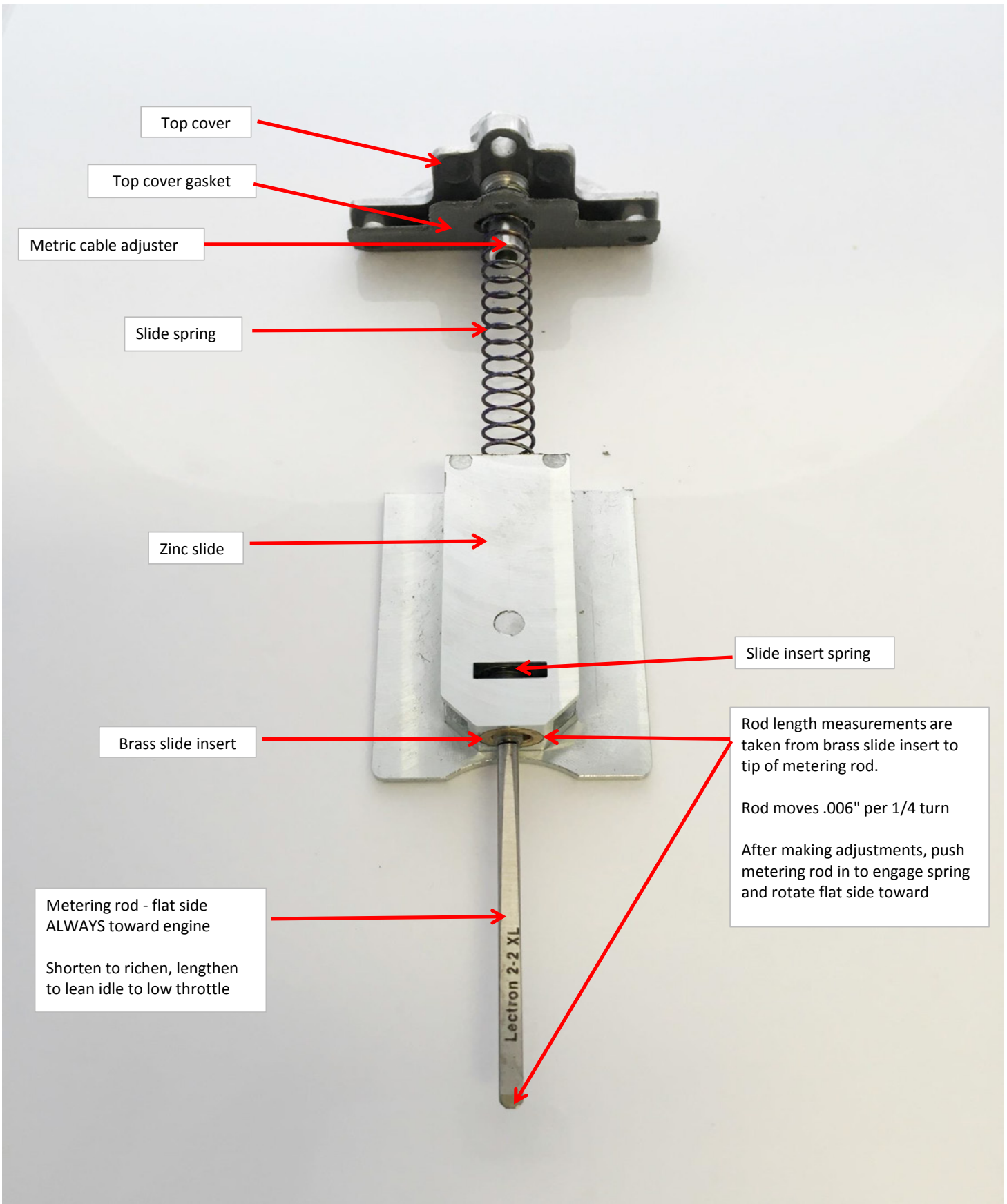
Vent lines

Carburetor spigot

Carb serial #







Top cover

Top cover gasket

Metric cable adjuster

Slide spring

Zinc slide

Slide insert spring

Brass slide insert

Rod length measurements are taken from brass slide insert to tip of metering rod.
Rod moves .006" per 1/4 turn
After making adjustments, push metering rod in to engage spring and rotate flat side toward

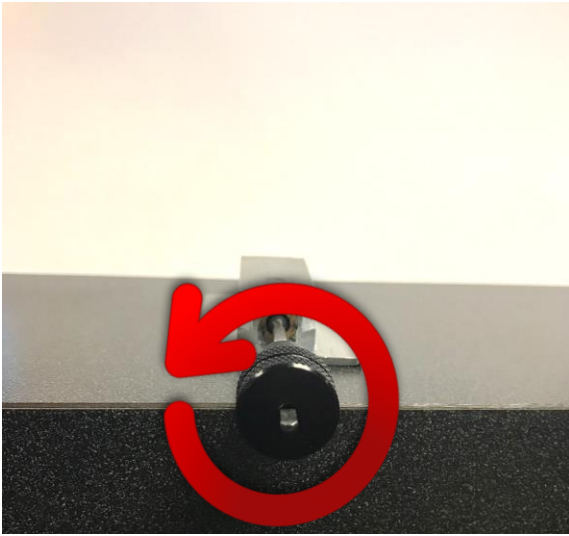
Metering rod - flat side ALWAYS toward engine
Shorten to richen, lengthen to lean idle to low throttle

Lectron 2-2 XL



How to Change Metering Rods

Step 1: Turn the rod counterclockwise to unthread it from the slide



Step 2: Thread the new rod in until you reach the starting length on your invoice. It will be in inches. Make sure that you do not collapse the spring the rod rides on when measuring.



How to measure the rod length from tip of rod to brass insert

NOTE: Every different metering rod has a different install lengths



Tip of rod

Brass insert

Make sure NOT to collapse the spring mechanism (this will change measurement)

Metering Rod Selection Chart

Lean						Rich (Idle to Mid)
	Top End		Idle to Mid			
	0-0	0-1	0-2	0-3	0-4	
	1-0	1-1	1-2	1-3	1-4	
	2-0	2-1	2-2	2-3	2-4	
			3-2m*			
	3-0	3-1	3-2	3-3	3-4	
			4-2m*			
	4-0	4-1	4-2	4-3	4-4	
	5-0	5-1	5-2	5-3	5-4	
	6-0	6-1	6-2	6-3	6-4	
	7-0	7-1	7-2	7-3	7-4	
	8-0	8-1	8-2	8-3	8-4	
	9-0	9-1	9-2	9-3	9-4	
	10-0	10-1	10-2	10-3	10-4	
	11-0	11-1	11-2	11-3	11-4	
	12-0	12-1	12-2	12-3	12-4	
	13-0	13-1	13-2	13-3	13-4	
	14-0	14-1	14-2	14-3	14-4	
	15-0	15-1	15-2	15-3	15-4	
	16-0	16-1	16-2	16-3	16-4	
	17-0	17-1	17-2	17-3	17-4	
	18-0	18-1	18-2	18-3	18-4	
	19-0	19-1	19-2	19-3	19-4	
Rich (Top)						A-6 (Custom Alcohol)
Notes						

*Modified (m) rods: The 3-2m has the same fuel from idle to 1/4 throttle as a 2-2, but the same fuel from mid to top as a standard 3 series rod.

The 4-2m has the same fuel from idle to 1/8th throttle as a 4-2, but the same fuel in the mid to top as a standard 3 series rod.

The larger the difference between the first and second number indicates the aggressiveness of the slope. A 5-1 (4 difference) has a more aggressive grind than a 4-2 (2 difference), meaning the 5-1 is lean near idle and very rich in the mid to top. The 4-2 is richer than the 5-1 at idle, but not as rich in the mid to top.

Rods are grouped into a series based off of their top end number. The bottom end is directly comparable to their own series, but NOT to rods in a different series.

If the low to mid performance is strong but the power jet is completely closed, go to the next leaner series metering rod. Example: Change from a 6-2 metering rod to a 5-2 metering rod.

If the metering rod is tuned for peak power and response, but the idle screw is turned all the way in, go to the next leaner rod in the series. Example: Change from a 4-2 metering rod to a 4-1 metering rod.



Power Ring Velocity Stack Installation

Step 1: Clean the outside of the bell of the carb.

Step 2: Apply a small amount of epoxy or sealer to the inside of the Power Ring.

Step 3: Tap the Power Ring onto the carb until it sits flush with the bell taper.

