

3rd Party Testing*

The ADJUSTER vs AFC Live

	The ADJUSTER	AFC Live	Summary of Test Result Comparisons
Fuel Delivery	<p>1. With the Adjuster, there are incremental settings on the control box (16); each yields precise fuel delivery every time. Turning the knob to select a setting and that fuel flow was always there. There is no bleed off.</p> <p>2. The Adjuster is mechanical, precise and delivers the same results each time. No modification or grinding required. 2 plates for efficiency of fuel delivery.</p> <p>3. The ADJUSTER has 8 point settings and 8 mid points on the dial so you know exactly which fueling request corresponds to which point on the dial. A single knob rotation (dialing from 1 to 8) allows precise selection of the fuel flow users wants.</p>	<p>1. One of the AFC Live's switches automatically throws the AFC Live into full fuel, but it won't accurately come back...It slowly bleeds off. On the test stand, even though there was a constant pressure feed from the test source, the AFC Live didn't maintain pressure. Even when the AFC Live was taken down to 10 lbs psi, pressure still bled off. Varying pressures are directly correlated to fuel flow variation. Since the AFC cannot precisely or continuously control the pressure, the fuel flow will vary.</p> <p>2. The AFC Live is run from air pressure working just on the AFC stop plate. AFC Live has just one stop plate.</p> <p>3. There are no individual indicator marks on any of the knobs to assist in selecting the fueling. The fuel control knob must continue to be turned multiple times to get air pressure to come up.</p>	<p>There is no exact selection of fuel flow with AFC Live so repeatability of fuel delivery is not obtainable.</p> <p>The ADJUSTER has precise settings with repeatability. Selecting a number on the controller brings about the same response each time.</p>
Torque plate	<p>0 profile included in kit accommodates most applications. 4 optional profiles (torque plates) are offered for specialized needs providing different torque curves.</p>	<p>Required to be removed for AFC Live. Runs on Aneroid Stop. No torque curve for the motor.</p>	<p>AFC live has no way of monitoring any type of torque curve on the motor...i.e. no way to know, for example, if there is more HP at 1800rpm than there is at 1000 rpm.</p>
Installation	<p>1. No grinding or any modification for The ADJUSTER is required. THE ADJUSTER is finely engineered and designed to be a bolt-on part and to function right out of the box.</p> <p>2. The Controller for the ADJUSTER uses a stainless steel small mounting plate (included in the kit) for secure attachment.</p>	<p>1. To get max travel, the customer must GRIND 1/8" off the guide barrel (AFC stop plate) of the AFC foot on v1.</p> <p>2. VELCRO is used to attach the AFC Live Control Box in the cab.</p>	<p>AFC LIVE requires users to grind the ARC guide barrel on v1, but no 2 users will grind it the same. Possible damage to the plate. Adjustability: specs could not be determined for the AFC Live since it runs off air pressure and each test was never the same.</p> <p>The ADJUSTER is a simple bolt-in installation with no modification of the pump or torque plates required.</p> <p>KITS: THE ADJUSTER kit is superior to the AFC Live kit because all the components required for precise fuel management are specifically manufactured for accuracy and precision and then provided to the end user. No add-ons are required for precise fuel control or monitoring.</p>

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In-cab Controller Size	Because all controls seem to be finely engineered, the size of the ADJUSTER's in-cab control box is small: L: 3" x W: 1.75" x H: 2" which includes the Control knob	AFC'S new box size: L: 7 1/4" x W: 3 1/8" x H: 1 3/8" (without readable gauge, length is 6 3/8")	AFC Live is large with several switches and dials on box. The ADJUSTER is significantly smaller and more compact with only one dial for full control.
Operation	<p>1. Everything on The ADJUSTER is precision set. It doesn't fluctuate. Selecting fuel position 5 is always 5 and 6 is 6. It can be selected the same place with that same fuel control each time.</p> <p>2. With The ADJUSTER, you know what you are getting and where on the knob you can find it. For example you can go from 45cc/thousand strokes to 449cc/1000 strokes and set it anywhere you want. Tests show that The ADJUSTER drops it all the way to 45cc/thousand strokes.</p> <p>3. The ADJUSTER has a stop plate and a torque plate (Fuel Profile). One operates when there is no air. As soon as there is air, it goes away and comes onto the torque plate. The ADJUSTER can better monitor the fuel output...at the low end and at the high end.</p>	<p>1. AFC Live works off air pressure---manifold pressure---which fluctuates. Could not get unit to repeat desired fuel control at any level.</p> <p>2. With no air going (no boost) to the AFC--(100cc's Bosch specs), the lowest it would test is 200cc/1000strokes. This can cause significant smoke .</p> <p>3. AC Live runs on air pressure working just on the stop plate. The user is required to remove the Fuel Stop, or Torque plate. The AFC live uses the existing AFC foot, and then customer is asked to grind it. The AFC kit does not include a foot, or profile set---the customer is asked to perform that operation, which can be very subjective.</p>	<p>Independent testing of the AFC Live could only get the fuel flow to return to a minimum 200 cc's/1000 strokes on the test bench. The AFC Live could never dial in the same results from same dial position...EVER. It runs off air pressure and the pressure is always variable, thus the user must continue to turn the knob several rotations to try to find the correct fueling. And that same result cannot be duplicated.</p> <p>The ADJUSTER is very precise and can accurately control fuel flow and a setting on the dial produces the same result every time. The user will always get the same response--miles to the gallon, etc. as anticipated. The ADJUSTER is fully mechanical and therefore very accurate..</p>
Visual Controls	The ADJUSTER's control knob allows a driver to set the fuel profile to the exact place every time. There are 8 major settings and also half settings (16 total) on the dial which allows precise control and management.	THE AFC Live Gauge only reads manifold air pressure. An optional kit is available which allows one to flip back and forth between air pressure or boost.	
EGT's	There will be lower EGT's using The ADJUSTER, because The ADJUSTER can be dialed all the way down to 45cc, and then all the way up to max fuel (with incremental precise selections at every level).	On test stand, could not get AFC Live any lower than 200cc's of fuel per 1000 strokes.	Lower EGT's for The ADJUSTER because it can be dialed all the way down, but AFC Live couldn't be dialed down below 200cc's/1000 strokes.
			* See Technical Report Pages, Bosch Pump Test Specifications