

# ROTTWEILER FUELING DONGLES

#### **DONGLE-FD-KTM**





#### CALIFORNIA WARNING

The California Air Resources Board (CARB) does not permit the removal or alteration of OEM emission control devices unless certified by CARB, other than for racing vehicles on closed courses. These products are legal for use ONLY in competition racing vehicles and are not legal in California for use on public roads, streets or highways. Check your local laws and regulations to determine that compliance needed in your city or state.

## GENERAL NOTES ABOUT ROTTWEILER FUELING DONGLES

Your stock KTM ECU (the computer that makes all the magic happen), has two modes of operation. 'Closed Loop' and 'Open Loop'. 'Closed' should be regarded as another term for 'connected' and 'Open' is another term for 'unconnected' like an on/off switch. These modes switch at around 5500 RPM and/or 20% throttle and closed loop would be the bottom half below 5500 RPM. What this means is that below around 5500 and/or below 20% throttle, the computer is 'connected' and 'listening' mostly to the O2 sensors that come stock located in each exhaust pipe for cues as to what to do with the closed loop electronic fueling of the bike. The reason these modes exist is to keep the AFRs (Air Fuel Ratios) as close to 14.7 as it can in closed loop mode (under 5500 RPM). The ECU has a number of maps to choose from to manage the closed loop fueling depending on what the stock narrow band O2 sensors are telling the computer. In short, the 'Closed Loop' inputs are designed to satisfy EPA mandated emissions goals and is not conducive to a smoother and stronger running engine when used in racing / off highway applications.

#### WHAT DO THE ROTTWEILER FUELING DONGLES DO?

The 'Rottweiler Fueling Dongles' are pre-set to deliver the stock ECU (Computer) a return signal that causes it to 'lock in' to one of its pre programmed maps that is on average almost 1 point richer than what it is set for the leaner stock condition. This ends up to be around 13.8 AFR +/- instead of the afore mentioned 14.7 AFR. This does a few things. For starters, roll on starts (Like taking off from a dead stop) become smoother due to the fact that the fueling mixture is richer. This is a much more ideal AFR for real world motorcycle riding / racing. Also, as a byproduct of being richer, the engine will run slightly cooler and put out less heat. A common problem on 1190 Adventures for example. The final effect of the Rottweiler Fueling Dongles is a reduced 'snatchiness' in the throttle, again, due to the richer mixture being closer in AFR to the 'open loop' map above 5500 RPM. Your 'MAP' (manifold air pressure) sensor is not interrupted and still allows the bike to acclimate to altitude changes.

- Exact factory replacement OEM connectors.
- Improved throttle response, with smoother power delivery and more HP and torque.
- Works well with FI modifications like the Power Commander and other modifications that require the elimination of the sensor



- · Allows use of an aftermarket exhaust that may not possess holes for O2 sensors.
- High quality Rottweiler Performance construction.
- All plugs hand tested one at a time.
- A good stepping stone for better fueling. (Powercommander V being the best way allowing much more
  control over your fueling needs. Rottweiler Performance specializes in 'Pre Setup' for Powercommanders
  delivering true 'Plug and Play' results. See here or Rottweiler Performance/Dynojet/Powercommander V.)

## HOW TO INSTALL ROTTWEILER FUELING DONGLES

Locate your front and rear exhaust pipe. Follow them in the direction of exhaust flow and find your stock O2 sensors (A). They will look like the picture below but the plugs will vary depending on the year. Trace the wires up until you find the first plug connection (B). 2014 KTM models will use a male Rottweiler Fueling Dongle plugs (pictured above) and older 990 LC8 engines will use female plugs. Unplug this connection on both the front and rear O2s and replace the connection with the Rottweiler Fueling Dongles. These will plug into the harness side connected to the bike.

# WHAT DO I DO WITH THE STOCK O2 SENSORS?

It is not mandatory, but we recommended that you remove the stock O2 sensors and plug the threaded hole it unscrewed from. This will preserve your stock O2 sensors and clean up the look of your engine. Rottweiler Performance manufactures a wide variety of O2 plugs that can be found in the 'EXHAUST' section of our website or by <u>clicking here</u>. Most 2014+ KTM models use 12mm plugs and all older 990 V twins use 18mm plugs. They are available in mild steel or non-corrosive stainless steel.

