



# ECHLIN®

# DID YOU KNOW?

## DIESEL

## Diesel Fuel Injection Control Modules

### Don't Tolerate Rough Running on Cold Starts

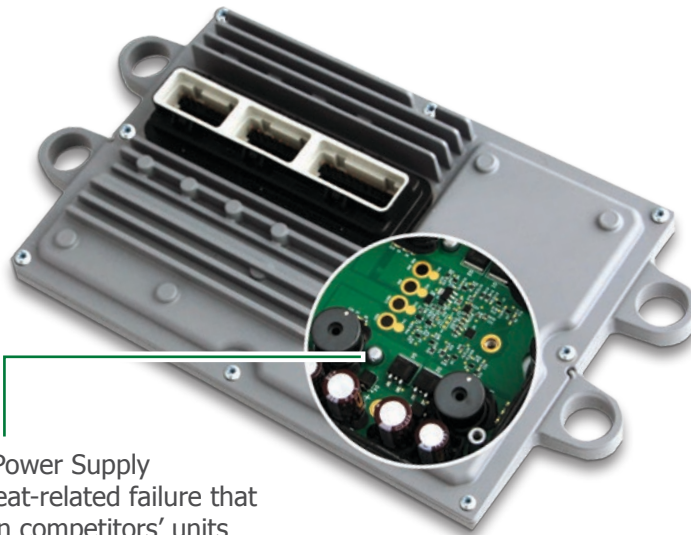
On the Ford® 6.0L Power Stroke® engine, the Fuel Injection Control Module (FICM) supplies 48 volts to the two injector solenoids. A voltage drop will lead to improper oil flow regulation and fuel injector function. During cold starts, when oil is thickest, the injector solenoids draw more current. The excessive current draw can damage the FICM's capacitors, causing them to drop out and lower the voltage supply. A common symptom is rough running on cold startups followed by normal engine operation. Although truck owners often tolerate the condition, it may lead to injector damage and even a crank no-start.

To help prevent serious damage to engines, we're proud to offer a line of Diesel Fuel Injection Control Modules. Each one is remanufactured using our upgraded 100% NEW Power Supply Module. Take our FCM200, for example:

### FCM200

Ford F-Series  
Super Duty Trucks  
& Excursion  
(2004-03)

**VIO Over 333,000**



Upgraded Power Supply prevents heat-related failure that can occur in competitors' units

### Tech Tip:

Make sure the correct voltage is coming out of the FICM when the job is complete. Also, to extend the longevity of your FICM repair or replacement, it is good practice to replace the fuel injectors, too.

### How to Identify a Faulty FICM...

- Monitor a scan data PID called FICM\_MPWR. If the data is lower than 48 volts, you likely have a faulty FICM.
- Make sure the PID FICM\_VPWR and FICM\_LPWR both indicate battery voltage. If sufficient voltage is not available to the FICM, it can't do its job.
- Expect plenty of DTCs set for injector circuit voltage errors

### ...and Make Sure Glow Plugs Aren't the Problem

FICMs and glow plugs can both cause hard start or rough running on a cold engine. Here's one way to tell the difference:

- If there's white smoke coming out of the exhaust after a long crank, the problem is likely the glow plugs.
- If there's no smoke, it's likely the FICM.



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GENUINE DIESEL PARTS

[NAPAEchlinDiesel.com](http://NAPAEchlinDiesel.com)



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### Powered by Our Upgraded FICM Board

The Ford Fuel Injection Control Module (FICM) contains two modules: a power module and a logic module. On select Ford trucks, the low-quality electronics on the OE and other aftermarket FICM power modules can overheat and lead to failure. Another common cause of failure with OE units is vibration.

Designed from the ground up at our state-of-the-art manufacturing facility, our Fuel Injection Control Module (FICM) Power Supply surpasses its counterparts in quality.

- Re-engineered circuit board layout
- Higher-quality electronics reduce excess heat
- Four large coils on the circuit board that exceed OE specifications
- Gold-plated contacts for greater energy transfer
- Built-in load dump protection for reduced high-voltage interference
- No programming necessary

Featuring a re-engineered layout, the circuit board is constructed with higher-quality electronics that protect critical components from excess heat. For proof, look at these thermal images. They were taken 1 minute after the modules were loaded during a cold-start simulation. Blue indicates cooler temperatures. Red indicates hotter.

As you can see, our Fuel Injection Control Module Power Supply distributes heat more evenly, keeping diodes and other critical components cooler and preventing the failure that can occur in competitors' units.



### FCM203

Ford 6.0L Diesel Trucks (10-01)

**VIO Over 800,000**

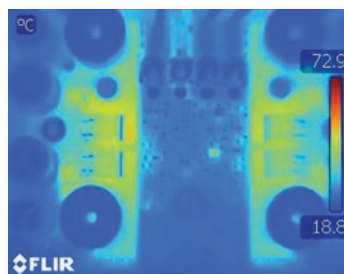
- 100% New
- Designed and manufactured in the U.S.A.
- Eliminates need to replace both power and logic modules
- Components epoxied in place to help prevent vibration-related failures



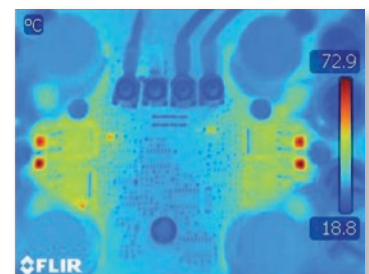
Our Module



Competitor's Module



Our Module



Competitor's Module



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