



# SUPPLEMENT INSTRUCTIONS for FR SERIES PTO (IN03-01)

The 2005 Ford wiring has changed and FR series PTOs need to use a new wiring harness to match installation to the Ford provided wiring.

## 6.0L Diesel 2005 and later Ford with Torqshift automatic transmission Standard Installation

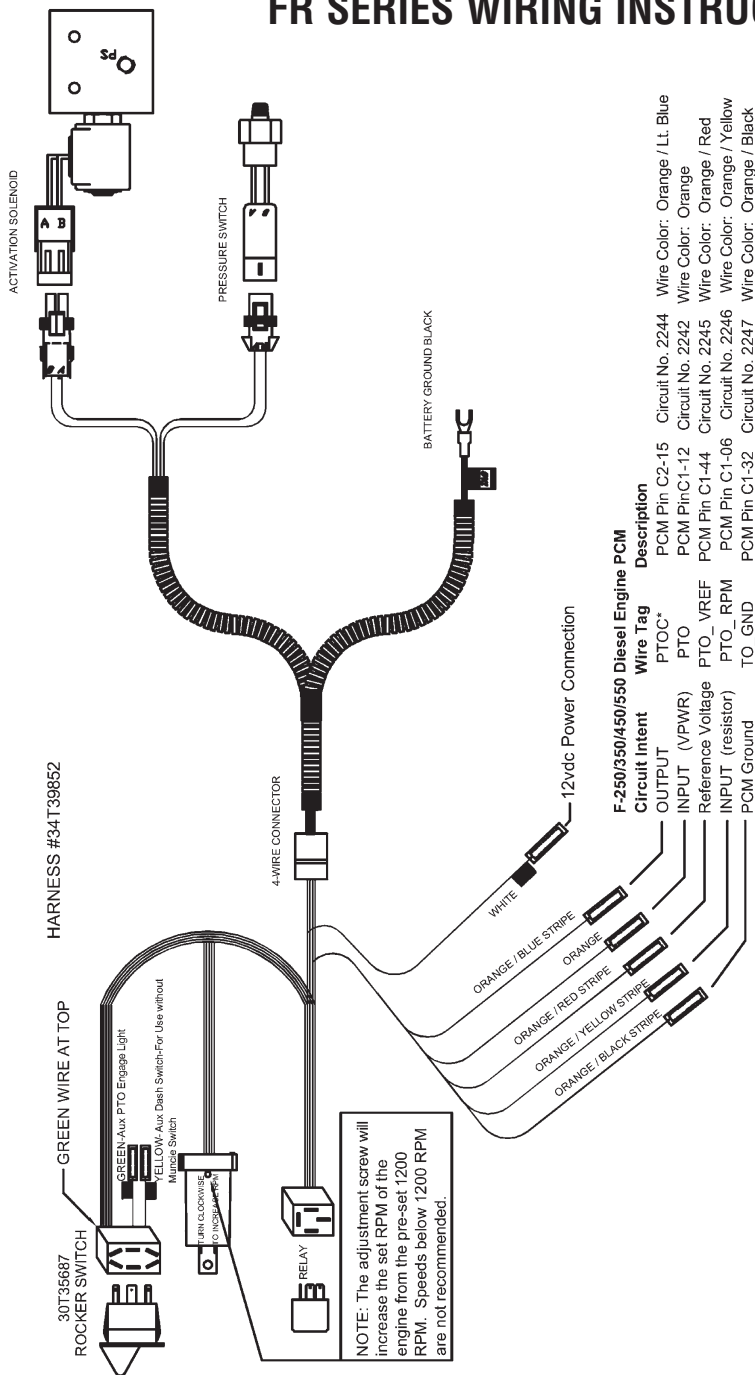
1. Install the wiring harness at the PTO activation valve and pressure switch as described in the FR series installation manual.
2. In the cab near the parking brake pedal you will find the Ford blunt cut wires for connection to the PTO wiring harness. (Fig. 1) Easier access to the wires can be obtained by removing the access panel from under the steering wheel and removing the screws holding fuse box. (Fig. 2)
3. Connect the solid ORANGE wire to the Ford solid ORANGE. Identified as circuit PTO.
4. The ORANGE w/BLUE stripe (solid BLUE in some Muncie harnesses) is supposed to connect to the Ford ORANGE/BLUE (circuit PTOC), but Job1 wiring by Ford did not have this wire connected to the vehicle PCM; therefore connect this wire to battery ground. Ford is to correct this on Vehicles built after Nov 2004. On vehicles built after Nov 2004 connect the Muncie Orange/Blue wire to the Ford Orange/Blue wire.
5. Connect the Muncie Orange/Red to the Ford Orange/Red (circuit PTO\_VREF)
6. Connect the Muncie Orange/Yellow to the Ford Orange/Yellow (circuit PTO\_RPM)
7. Connect the Muncie Orange/Black to the Ford Orange/Black (circuit PTO\_RTN)
8. Install the Muncie switch either into the Muncie switch bracket or dash. Plug the switch harness into the switch so that the GREEN wire in the harness is at the TOP of the switch.
9. Plug the relay into the relay socket.
10. Locate a 12v ignition switched power source. This maybe found by locating the Ford WHITE/BLUE wire near the data link connector or by going to the fuse box. Connect the Muncie WHITE wire to this power source.

## 6.8L V10 GAS 2005 and later Ford with Torqshift automatic transmission. Standard Installation

1. Install the wiring harness at the PTO activation valve and pressure switch as described in the FR series installation manual.
2. In the cab near the parking brake pedal you will find the Ford blunt cut wires for connection to the PTO wiring harness. (Fig. 1) Easier access to the wires can be obtained by removing the access panel from under the steering wheel and removing the screws holding the fuse box. (Fig. 2)
3. Separate the bundle and note that the ORANGE wires have stripes on them.
4. Connect the solid ORANGE wire to the Ford solid ORANGE. Should be marked PTO.
5. The ORANGE w/BLUE stripe (solid BLUE in some Muncie harnesses) is to connect to the Ford ORANGE/BLUE.
6. Connect the ORANGE/YELLOW to the Ford ORANGE/YELLOW.
7. Connect the ORANGE/WHITE to the Ford ORANGE/WHITE.
8. Install the switch either into the switch bracket or dash. Plug the switch harness into the switch so that the GREEN wire in the harness is at the TOP of the switch.
9. Plug the relay into the relay socket.
10. Locate a 12v ignition switched power source. This maybe found by locating the Ford WHITE/BLUE wire near the data link connector or by going to the fuse box. Connect the Muncie WHITE wire to this power source.

*Figures 1 & 2 are on the back page*

# FORD 2005 AND LATER - DIESEL ENGINE FR SERIES WIRING INSTRUCTION



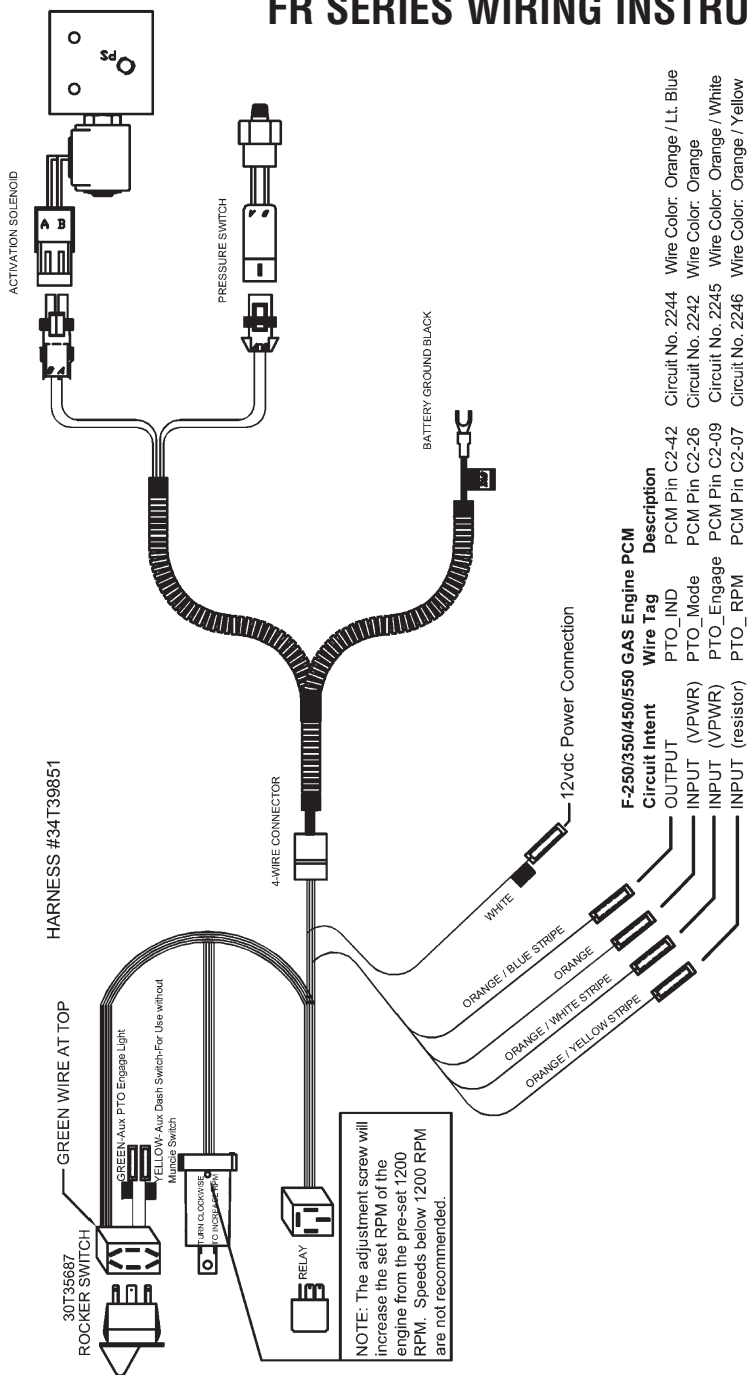
## F-250/350/450/550 Diesel Engine PCM

Circuit Intent	Wire Tag	Description	Wire Color
OUTPUT	PTOC*	PCM Pin C2-15	Circuit No. 2244 Orange / Lt. Blue
INPUT (VPWR)	PTO	PCM Pin C1-12	Circuit No. 2242 Orange
Reference Voltage	PTO_VREF	PCM Pin C1-44	Circuit No. 2245 Orange / Red
INPUT (resistor)	PTO_RPM	PCM Pin C1-06	Circuit No. 2246 Orange / Yellow
PCM Ground	TO_GND	PCM Pin C1-32	Circuit No. 2247 Orange / Black

\* Prior to December, 2004, Ford had not installed this connection (PTOC) into the PCM. Connect to battery ground.

NOTE: The adjustment screw will increase the set RPM of the engine from the pre-set 1200 RPM. Speeds below 1200 RPM are not recommended.

# FORD 2005 AND LATER - GAS ENGINE FR SERIES WIRING INSTRUCTION

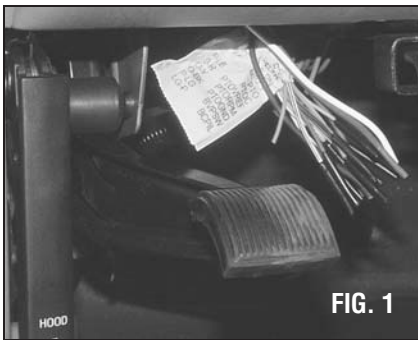


## F-250/350/450/550 GAS Engine PCM

Circuit Intent	Wire Tag	Description
OUTPUT	PTO_IND C2-42	PCM Pin C2-42 Wire Color: Orange / Lt. Blue
INPUT (VPWR)	PTO_Mode C2-26	PCM Pin C2-26 Wire Color: Orange
INPUT (VPWR)	PTO_Engage C2-09	PCM Pin C2-09 Wire Color: Orange / White
INPUT (resistor)	PTO_RPM C2-07	PCM Pin C2-07 Wire Color: Orange / Yellow

**OPTIONAL:  
Using the FORD supplied AUX switch  
(Upfitter switches) (Gas or Diesel):**

1. Wire the harness as listed above.
2. Do not use the Muncie rocker switch.  
Connect YELLOW wire from the Muncie switch socket to the wire from the desired Ford AUX switch. The Muncie PTO will not draw more than 10 Amps, so any of the switches can be used.
3. Install a PTO indicator light in the vehicle dash (not supplied). Connect the GREEN wire from the rocker switch socket to the light and connect the other side of the Light to 12vdc power source.



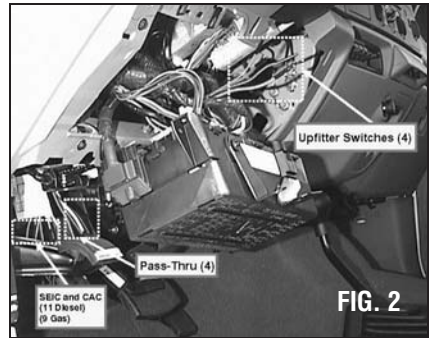
**FIG. 1**



**FIG. 3**

**RPM Adjustment with Muncie Control**

1. Muncie wiring harnesses include a variable control for adjusting the vehicle throttle advance to a speed other than the preset 1200 RPM. Locate the module with the set screw adjustment and the label indicating adjustment.
2. Turn the adjustment screw clockwise the increase RPM (Max 2300 RPM) (Fig. 3). Use tachometer to set speed. Mount under the dash.
3. Once the speed is adjusted, the engine will advance to this speed every time the PTO is activated.
4. The speed can not be adjusted below the recommended 1200 RPM operating speed set by Ford. This ensures adequate PTO activation pressure from the transmission and torque converter lock-up.



**FIG. 2**



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