

PTO Quick Start Information

This section will give you specific instructions on how to wire a PTO on the 2013 & 2014 3500/4500/5500 models. The information is tailored toward those familiar with PTO installation on the 2007 to 2012 but can be equally helpful to anyone installing a PTO.

Standard Stationary mode

The vehicles are shipped in standard stationary mode. This gives you the capability of turning on the PTO via the in cab switch. Standard as shipped setup is that the idle speed goes to 900 RPM and the engine speed is variable from 900 to 2000 RPM via the cruise control switches. You can also preset one speed using the single set speed function on the instrument cluster EVIC screen. (see page 2)

If you are using Standard stationary mode, the only in cab wiring you require is the Circuit W708. This is an orange wire with a brown stripe located on the brown VISM connector. This circuit needs to be either connected to the ground circuit created by the PTO pressure switch, or it can be connected permanently to ground on the diesel only. If you want to connect it to a permanent ground, you can connect it to the black ground circuit also located on the brown VISM connector. See this link for more VISM module details.

<http://www.rambodybuilder.com/2013/docs/cc/dddpvsim.pdf>

Underhood you need to connect your two PTO hot shift solenoid connections to circuits 2 (12V+) and 3 (ground).

If you are using a PTO pressure switch, one side of the switch is also connected to circuit three and the other side is connected to circuit 4. See the photo below that shows the light gray connector below the dark gray connector in the underhood environment with the four numbered arrows on it. Circuit 4 then passes through into the gray connector near the white connector in the other photo below. The mate to this connector is contained in the upfitter wiring bag and has a violet wire with a yellow stripe. This wire connects to circuit W708 described above.

Note: There is no need to install the dark gray 4 circuit “jumper” connectors in Upfitter kit 68209498AA. The correct jumper is factory installed.

Note: You cannot use Standard Stationary Mode if you require engine remote start stop. You must use remote mode with an aftermarket switch.

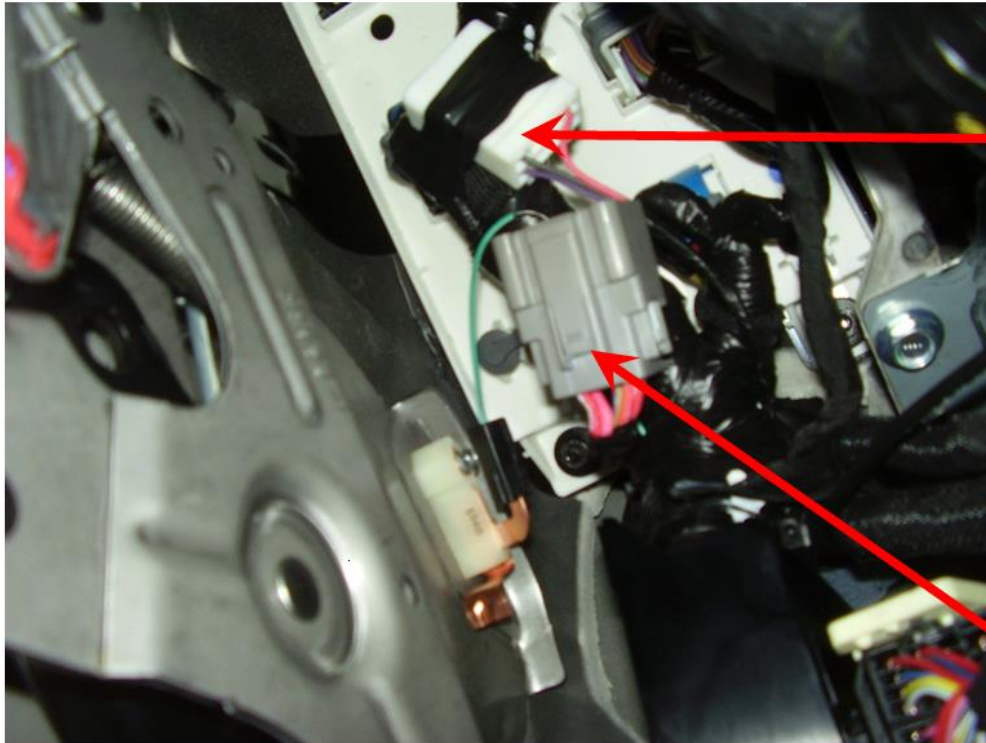
Remote mode

Remote mode is used when you require a remote switch or if you are using hard wired remote start/stop. For remote mode you cannot use the in cab switch. In remote mode the in cab switch becomes an unusable switch.

Remote mode requires that you install an aftermarket switch and use it to connect circuits F425 (pink) and Z905 (black). These wires are located on the black connector that comes in the upfitter kit and connect to the white under dash connector shown below.

Wire Locations

There are two connectors under the dash which are used. They are the same connectors as previous years, but their locations are altered.



White
Connector
Remote mode only

Gray
Connector

Both of these connectors are located behind the VISM module towards the front of the vehicle. The VISM module is the black plastic module next to the park brake bracket. The view above shows the connectors on a vehicle that does not have a VISM module as it would block the view of these connectors. The white connector is 'tear taped' in place and can be accessed by pulling the connector and tearing the tape without pulling on the wires themselves. The gray connector is tie wrapped in place so the tie wrap must be cut to access the gray connector.

The white connector contains the following circuits for remote mode:

1. Z907 (Black) PTO switch return **Note: V937 (Violet/brown) does not function for 2013.**
2. F425 (Pink) Remote PTO switch. Connects to Z907 via the upfitter added switch. For remote/multi-speed mode only.

The mate to this connector is the smaller black connector that comes in the upfitter kit plastic bag.

The gray connector contains the following circuits.

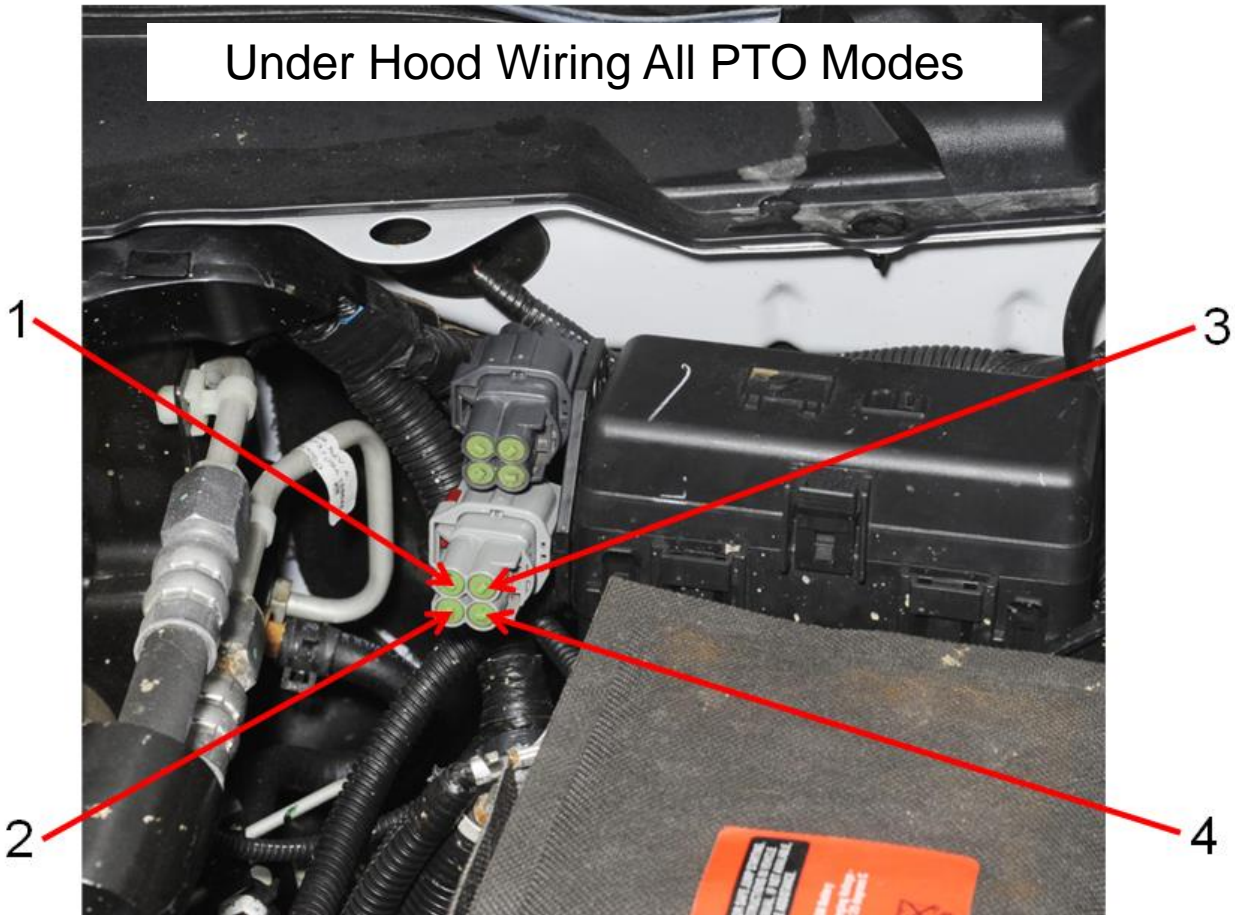
1. F922 (Pink/yellow). This typically used for 12V+ ignition feed power for a PTO indicator light if you are not using the in dash switch.
2. G425 this is the pass through wire that comes from the under hood wire you will connect to the pressure switch supplied by the PTO manufacturer.

There is a gray mating connector also in the upfitter kit plastic bag.

Note: The ground signal from the pressure switch must be connected to circuit W708 (orange/brown) located on the brown connector of the VISM. If circuit W708 does not see a ground signal, the PTO will turn off in 30 seconds on the diesel and 10 seconds on the gasoline engine.

See the VISM section page 8 for additional instructions.

Under Hood Wiring All PTO Modes



The light gray connector under the hood shown in the figure above (below the dark gray connector) behind the auxiliary PDC contains the following connections. The Pin numbers below are molded into the surface of the connector. The wires that plug to this connector are also in the upfitter kit plastic bag.

1. Not used for 2013 or later automatic transmission models.
2. F928 (pink /yellow) Switched 12 v output that connects to the PTO hot shift solenoid.
3. Z907 (Black) ground
4. G 425 (violet/yellow) PTO indicator light feed. This wire connects to the PTO pressure switch and feeds through the dash to the gray under dash connector mentioned

Note: In all PTO modes VISM circuit W708 must see a ground signal either through the PTO pressure switch or a direct ground circuit. If no ground is seen by engine controller, the PTO will turn off after 30 seconds.