

## **TESS 1 Wireless Installation Instructions**

- 1) The TESS303 is mounted behind the driver's seat parallel with the back wall and the connector facing the left side (Driver side) of the vehicle. Used the two self drilling screws supplied in the kit to secure it to the floor.
- 2) Remove the plastic sill plate covers and run the #1 harness (7 wire) and the #3 harness (2 wire) along the cavity of the floor. The #1 harness will end up behind the left side of the dash panel and the #3 harness will be run out to the PDC box mounted under the hood on the driver's side. A hole will have to be made in the firewall to accommodate 5 harnesses.
- 3) Install the TESS 1 Wireless Label on the left side of the dash panel. Thoroughly clean the dash with alcohol to remove any oil base materials. Drill a 5/16" hole on the right side of the label for the LED Red light and a 15/32" hole on the left side of the label for the toggle switch. Mount the light in the hole and install the lock of the light. Don't install the toggle switch at this time, make all the electrical connection to switch first.
- 4) Remove the cover of the PDC box and unhook the box from the bracket. Remove the outer cover from the fuse and relay holder asy. **BE CAREFUL OF NOT GROUNDING OUT ANY OF THE POSITIVE EXPOSED CONNECTIONS.** Refer to the drawing for the installation of the #3 harness and the #4 harness. Make all connections permanent and sealed against the weather. After the termination is complete reassemble the PDC box.
- 5) Install the neutral safety harness #2, remove threaded plug found behind the shifter on the top of the transmission. Thread in and tighten the neutral safety switch and run the harness inside the cab to connect to one of the wires in the #4 harness and the other will connect to wire #3 of the #1 harness.
- 6) Run the #7 harness (E-Power) to the rear solenoid for the Emergency Pump and connect the red wire to the positive trigger of the solenoid. Discard the black wire, not used. The other end of the red wire will be connected to the #2 wire of harness #1 in the cab.
- 7) Run the #5 harness out to the RPM relay and connect it to the relay as shown in the drawing. Connect the other end to the toggle switch as shown in the drawing.
- 8) Run the #6 harness from the TESS 1 toggle switch area (left side of the dash) to the fuse panel area (Right side of the dash). You will find a pink wire 13B that is looped and taped to a group of wires on the left side of the fuse panel. Pull on the loop and expose the end of the wire. Connect the red wire to the pink wire and replace the 5 amp mini fuse #21 with a 10 amp mini fuse. Discard the black wire, not used. Connect the other end of the red to the Toggle Switch, refer to the drawing.
- 9) Extend the #6 wire of the #1 harness to the throttle pedal harness area. Tee into the wire coming out of the cavity 'A' wire # B99V.
- 10) Finish the connections at the toggle switch and the indicator light. Mount the toggle switch in the dash panel. Connect the #1 wire of the #1 harness to the ground stud found on the firewall.

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11) Mount the TESS 1 Wireless Switch box in the bucket area and mount the weather proof enclosure for the lower Switch Box.

12) Test out the system for proper operation. With the truck running and the PTO is engaged, switch the toggle switch on and the indicator light should illuminate. The cab foot throttle should not work and you should be able to work the set RPM from the wireless switch control. The engine stop and the engine start should work. With the engine stop move the shifter lever in gear and make that the neutral safety switch operate properly. Also check the Emergency power for proper operation. If any of the function are not working properly refer back to the installation instructions for proper connections or any mistakes.

Tech Support:

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**Hydro One Networks Inc.**  
**TESS303 Installation Instruction**

**Truck Manufacture:** International  
**Engine Manufacture:** International  
**Engine Model:** Cummins  
**Transmission:** Standard  
**Lift Manufacture:** Terex

**Pin# 1** - Connect to Chassis (Ground)

**Pin# 2** - To ECM switch feed wire. Wire# J97U.(See Note1)

**Pin# 3** - Jump to Pin# 1 (Ground)

**Pin# 4** - To Emergency Hydraulic Pump Relay.(12V Output)

**Pin# 5** - Connect to the Neutral Safety Switch wire and then connect the other wire coming from the Neutral Safety Switch to the starter trigger wire at Starter Relay. Wire# J17

**Pin# 6** - Connect to On/Off Toggle Switch (See Drawing)

**Pin# 7** - To ECM switch feed wire. Wire# 97U.(See Note 1)

**Pin# 8** - Not used.

**Pin# 9** - Connect to On/Off Toggle Switch (See Drawing)

**Pin# 10**- Jump to Pin# 9

**Pin# 11**- Not Used

**Pin# 12**- Tee into the Throttle Position Sensor signal wire (B99V) which is cavity 'A' at the sensor.

**Pin# 13**- Jump to Pin# 3 (Ground)

**Pin# 14**- Jump to Pin# 13 (Ground)

**Pin# 15**- Jump to Pin# 14 (Ground)

**Pin# 16**- Connect to the Clutch Switch Ground for the Starter Relay wire# A17J

**1)Note:** The ECM switch feed wire has to be cut. The one end of the cut wire will be joined to Pin# 2 and the other cut wire is joined to Pin# 7.

**REVISED TESS303 10 PIN CONNECTOR**

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**Engine Model:** Cummins  
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**Pin# 1** - Connect to Chassis (Ground)

**Pin# 2** - To ECM switch feed wire. Wire# J97U.(See Note1)

**Pin# 3** - Connect to On/Off Toggle Switch (See Drawing)

**Pin# 4** - To Emergency Hydraulic Pump Relay.(12V Output)

**Pin# 5** - Connect to the Neutral Safety Switch wire and then connect the other wire coming from the Neutral Safety Switch to the starter trigger wire at Starter Relay. Wire# J17

**Pin# 6** - Connect to the Clutch Switch Ground for the Starter Relay wire# A17J

**Pin# 7** - To ECM switch feed wire. Wire# 97U.(See Note 1)

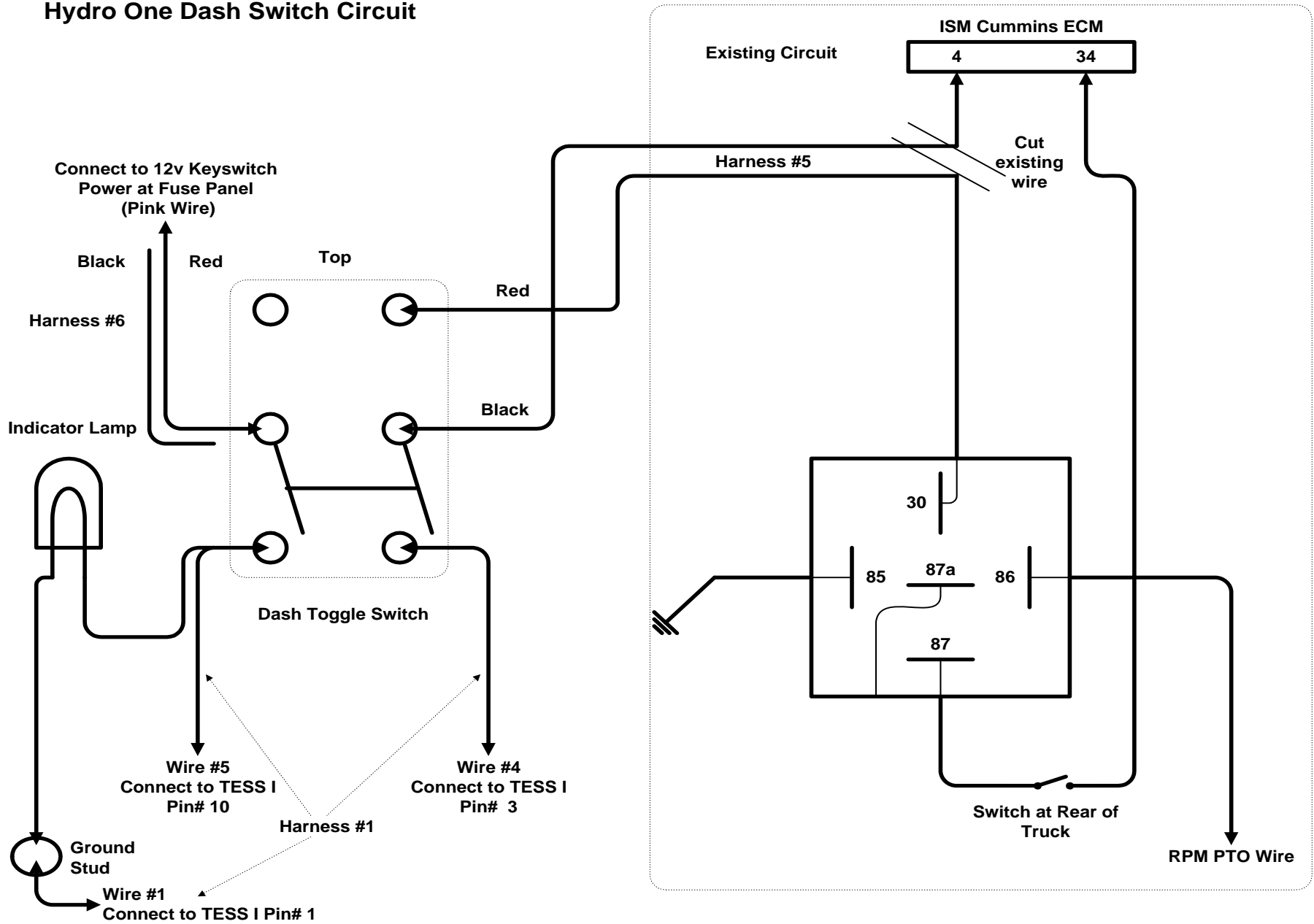
**Pin# 8** - Not used.

**Pin# 9** - Tee into the Throttle Position Sensor signal wire (B99V) which is cavity 'A' at the sensor.

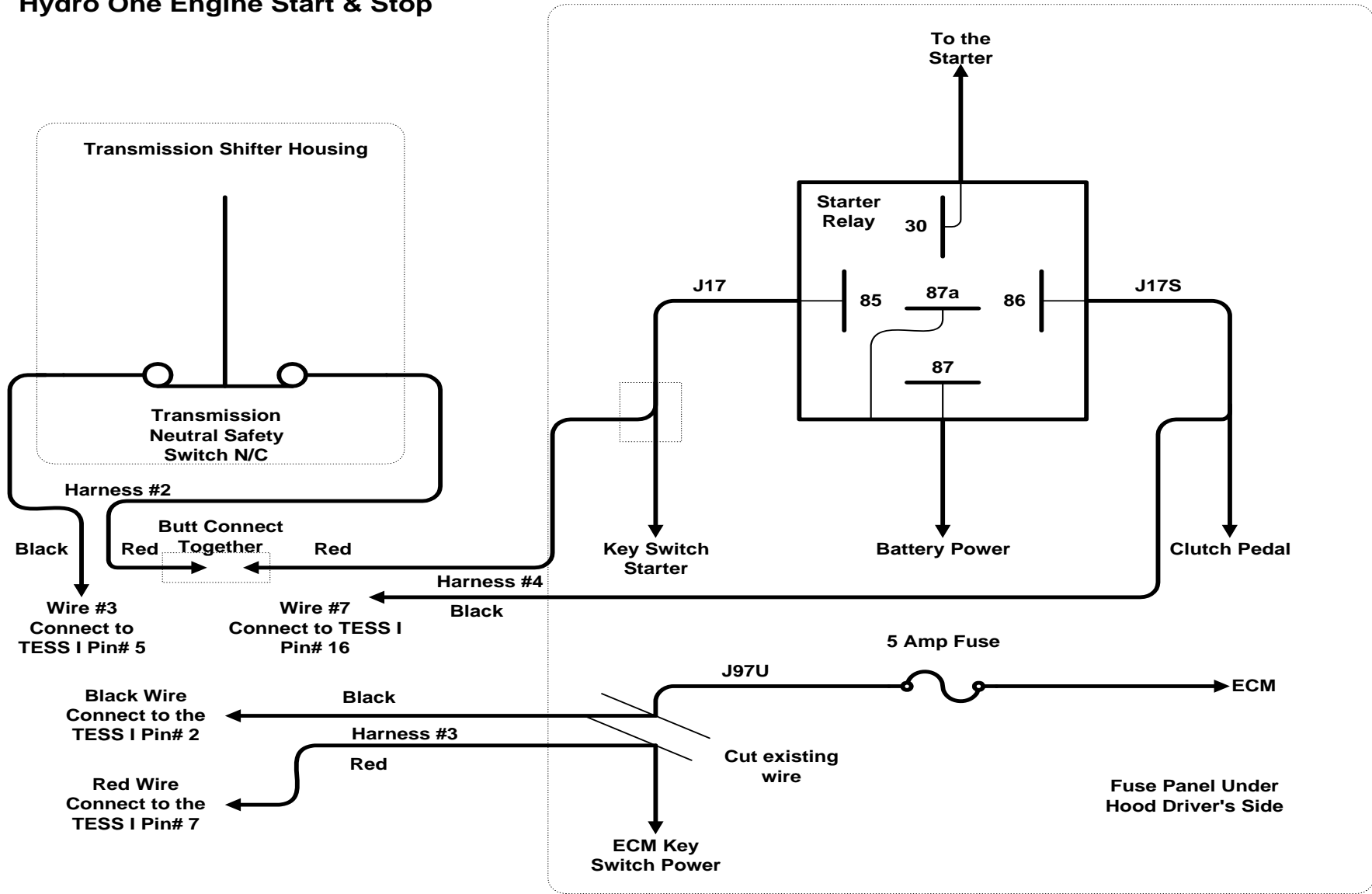
**Pin# 10-** Connect to On/Off Toggle Switch (See Drawing)

**1)Note:** The ECM switch feed wire has to be cut. The one end of the cut wire will be joined to Pin# 2 and the other cut wire is joined to Pin# 7.

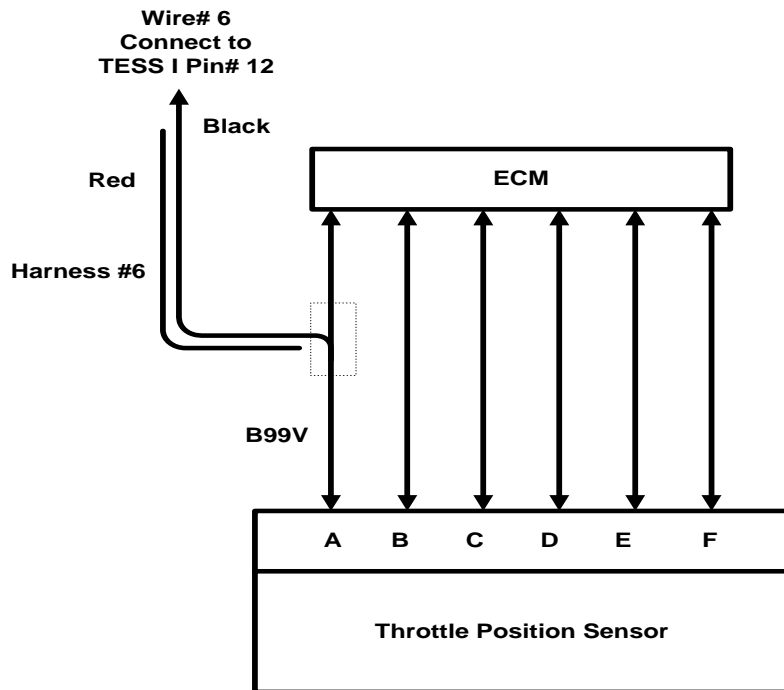
# Hydro One Dash Switch Circuit



# Hydro One Engine Start & Stop



## Hydro One Throttle Pedal Interface



## Hydro One E-Power Interface

Found in the body panel on left side of truck next to the valving.

