

Tractor starts but does not accelerate

DOCUMENT #
SOP 21

AUTHOR
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REVISION
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APPLIES TO
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DATE
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JOB CODES: **ELC-005 — Fuse replacement / electrical diagnosis**

Total: 0.75 hrs

FAILURE MODE / WHEN TO USE THIS SOP

Tractor fires up and stays Idle or Tractors starts but does not go beyond certain rpms or does not reach full throttle upto 2400 rpms.

TOOLS REQUIRED

- Multimeter
- Flat screw driver
- Allen keys - Metric

EST. REPAIR TIME

1 hr
hours

Intermediate

PARTS REQUIRED

Part #	Description	Assembly	SKU	Price
10055457AA	CONVERTER (12VDC TO 5VDC)	ELECTRICALS	10055457AA	\$27.89

PROCEDURE

1 Step 1

Check if you hear tic tic noise when the ignition key is turned ON. The feed pump may not be working if there is no sound.

2 Step 2



Figure 2

Check the throttle cables by pressing the throttle lever all the way up (Hand) and check if you can push the physical lever on side of throttle body. Throttle body is located on right hand side of engine closer to loader mount frames and fuel filter.

3 Step 3

Check battery condition and fuse in the fuse box (10A). Low battery voltage may also cause this issue. The fuse is located in the fuse box by side of coolant tank, under the hood.

4 Step 4

Step 3 : Using Multi-meter check voltage on below points,

Pin #	Description	Comment
1	+12V Input Power	Supply Power
2		No Use
3	MPU / Auk	Ground for Auk inputs (For pin up and Atmospheric sensor)
4		No Use
5	Input Power Ground	Ground for the 12 V input power
6		No Use
7	5V Out*	Power for Atmospheric sensor (Total 20 mA max)
8	Aux Input 1 **	Input for accelerator position sensor input (0.5 - 4.5 V)
9		No Use
10	Aux Input 2	Input for Atmospheric sensor "Null" terminal output
11	MPU +	MPU (Push up) speed signal input
12		No Use

Figure 4

Locate the electronic governor. Push the side of its connector to slide out its coupler. Look for pins on its coupler side using below illustration. You should get minimum voltage of 0.5V and should go upto 4.5 V as you press the throttle pedal.

5 Step 5

Circuit diagram for Acceleration of Tractor

As understood, there is no power on Pins at Electronic Governor. We suspect that the circuit is broken which activates Governor function on acceleration.

Please check below

1. Check for Aux fuse (10A) in fuse box. Fuse box is mounted in front of Radiator below hood.
2. Check the DC to DC converter. Please remove the plastic panel below dashboard. You will find a relay like part having DC to DC converter written on it. It could be faulty and will not send current to throttle body. In the circuit diagram note, You can also check for current flow by color of wire (R/B -> Red and Blue).
3. Please check if you are getting voltage between Pin 3 and Pin 8. If no Power, means the throttle body sensor is faulty.
4. Check for Atmospheric sensor (Mounted in front of firewall just under the hood).

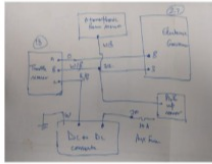


Figure 5

If the voltage is not within range. We suspect the DC to DC converter may be faulty.

6 Step 6

Order a new DC to DC converter and replace it. It is located under the plastic dash. Take off the plastic dash using flat screw driver.

7 Step 7

Contact Summit Tractors for further diagnostics if these checks does not resolve the issue.



NEED ASSISTANCE?

Contact **Summit Tractor Service** at (770) 209-3390, Option 2 or email service@summittractors.com