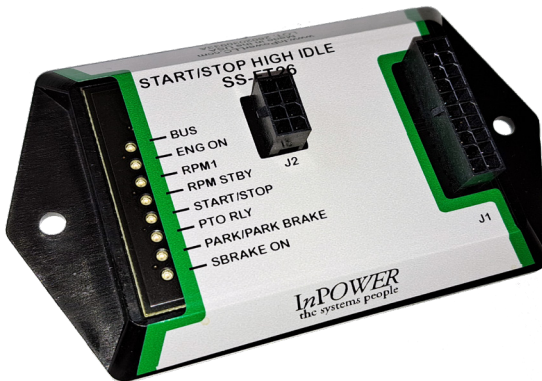


# Installation and Operational Manual InPower Model SS-FT26

## Electronic Start/Stop/Elevated Idle Control Module for Ford 2026 Transit

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See: [http://www.inpowerelectronics.com/throttle\\_selector](http://www.inpowerelectronics.com/throttle_selector)

**Warning:** Check the Brake Lights on the vehicle. If they are ON (no matter the position of the Service Brake), recalibration of the Service Brake Position Switch is required before proceeding!

## For more detailed Operation explanation, please refer to the OM-267 SS-FT26 Owner's Manual.

### 1. Introduction

InPower's SS-FT26 Ford Transit Module provides Start/Stop Functions, an elevated Idle selection, and decoding of Park and Park Brake signals. This product is compatible with the 2026+ Ford Transit. It is designed to be mounted under the Steering column near the Steering Column Control Module, the Ignition Harness Connector, and the Service Brake.

This Module comes with various modes of control: Start, Stop, and two preset RPM speeds (one default setting and another selectable - both are programmable).

**Note:** The elevated idle functions will only operate if the **Chassis Ready Conditions** are satisfied. LED diagnostic indicators are provided to aid in system troubleshooting. These LEDs are located on the left side of the module.

**Chassis Ready Conditions** typically could be:

- No vehicle speed
- Accelerator not depressed
- Engine up to Operating Temperature
- Shifter in Park
- Service brake not depressed (For Remote Start/Stop this operation is simulated by the module)
- Engine running
- No Diagnostic Trouble Code (DTC). Check Engine light must be off.
- Other hindering conditions will be detailed in the Body Builder's Guide ([www.fleet.ford.com/truckbbas/](http://www.fleet.ford.com/truckbbas/))

The following Figure shows the system with the two harnesses for connecting to the various systems

The first harness, the 7201.106 Data Bus Harness connects to the following:

1. The Steering Column Control Module and picks up the Data Bus via a T-Harness (Group 1). This Data Bus provides Vehicle Information for PARK, SERVICE BRAKE, ACCELERATOR, and PARK BRAKE to the SS-FT26.
2. To provide the fused switched +12V Module Power, Ground, and RPM Adjustment.

The second harness made up of the 7201.107 I/O Harness connects the module to the following:

1. SEIC Interface (Group 4) blunt cut wires PTO RLY (Lt Blue), PTO Req1 (Yellow/Green), PTO RPM (Dark Green), PTO Req2 (Orange).
2. Blunt Cut Wires (Group 3) for controlling the engine with IN1 SW +12V, RPM1 Selection (12V level or Pulse to GND), Start/Stop (GND Pulse), Park (GND), PTO Out (12V 10amp Max), Aux Out (12V 3amp Max), and Park Brake (GND True).
3. Service Brake Interface Control Interface (Group 2) provides the interface to provide the appropriate signals to allow remote Start/Stop since that function relies on the Service Brake being activated.
4. Push Button Start (Group 1) T-Harness. This controls the Starting and Stopping of the vehicle.



## Truck Body Builder Advisory Service:

[www.fleet.ford.com/truckbbas/](http://www.fleet.ford.com/truckbbas/)

**Warning:** Check the Brake Lights on the vehicle. If they are ON (no matter the position of the Service Brake), recalibration of the Service Brake Position Switch is required!

### 1.1 Interface Selection

This section discusses the interface for the SS-FT26

1. The SS-FT26 needs to be located close to the Steering Column so that the T-Harnesses may be easily connected to the Steering Column Control Module, the Ignition Harness, and the Service Brake Position Switch.
2. Module Power +12V Battery (Red, Group 2, 7201.106) is a switched fused 12V source that supplies power to the SS-FT26 Module.
3. IN1 SW +12 connected to the same switch (fused +12V Battery) as feeding the Module Power (Pink, Group 3, 7201.107).
4. RPM1- Gnd Pulse (Tan, Group 3, 7201.107) requires a pulse to Ground to select RPM1, and a second Ground Pulse to turn RPM1 off (back to RPM STBY - Default).
5. RPM1-12V (Violet, Group 3, 7201.107) requires 12V to enable RPM1, and removing 12V from this line will turn RPM1 off (back to RPM STBY - Default). RPM Gnd Pulse (Tan) is not available as long as 12V is applied to this line.
6. START/STOP (Brown, Group 3, 7201.107) requires a pulse to Ground to Turn Engine On, and a second Ground Pulse to Turn the Engine Off.
7. The Ground connection (Black, Group 2, 7201.106) connected to Battery Ground.
8. **RPM Adjust (ADJ)** Light Green, 7201.106 - Applying 12V or GND will raise or lower the RPM value. See RPM Adjustment Procedure.
9. Outputs
  - The PTO Interface is the PTO OUT (Orange, Group 3, 7201.107) 12V (3A Max) which turns on when SEIC PTO RLY (Lt Blue, Group 4, 7201.107) goes to Ground.
  - AUX OUT (Yellow/Red, Group 3, 7201.107) remains on as the module is powered up by Module Power (7201.106, Group 2, Red) IN1 SW 12+ (Pink, Group 3, 7201.107) is ON. AUX OUT is for upfitter components needing to remain powered during a shut down sequence (Max 3 Amps).
  - Decoded LS01\_PARK (Dk Blue, Group 3, 7201.107) and LS02\_PARK BRAKE (White/Black Group 3, , 7201.107) discrete wires are available as discrete wires (GND True). These reflect the current status of the PARK BRAKE and PARK for the vehicle and are enabled if the Module is Powered up and operational.  
**(Total for PTO\_OUT and AUX\_OUT should be less than 13A total)**
10. SEIC Blunt Cut Wires
  - PTO\_RLY (Lt Blue, Group 4, 7201.107) - PTO Relay
  - PTO REQ1 (Yellow/Green, Group 4, 7201.107) PTO Request 1
  - PTO RPM (Dark Green, Group 4, 7201.107) PTO RPM
  - PTO REQ2 (Orange, Group 4, 7201.107) PTO Request 2

## 2. Installation

### 2.1 Safety Precautions

This electronic Start/Stop/Elevated-Idle/Decoder product has been designed and manufactured to meet the intended application requirements and specifications. Any modifications to the product or to the installation procedure can be dangerous and will void InPower's warranty.

- Read and understand the instructions in this manual and other manuals before starting the installation.
- **Make sure that the vehicle battery power is disconnected during the installation of the Start/Stop module.**
- **Reconnect the battery when the system installation is complete.**
- Wear appropriate safety equipment, such as protective eyeglasses, faceshield and clothing when installing equipment and handling the battery.
- Be careful when working near a battery. Make sure that the area is well ventilated and that there are no flames near the battery. Never lay objects on the battery that can short the terminals together. If battery acid gets in your eyes, immediately seek first aid. If acid gets on your skin, immediately wash it off with soap and water.
- Avoid disconnecting and making connections to the SEIC and PTO with the vehicle powered.

### 2.2 Getting Started

**IMPORTANT NOTE:** Please obtain the specific SEIC installation instructions for your vehicle model from Ford. Wire colors and locations may vary from model to model and even between different years for the same model. The guide may be obtained from **Ford's Body Builder Advisory Service**.  
([www.fleet.ford.com/truckbbas/](http://www.fleet.ford.com/truckbbas/))



**Carefully disconnect the battery before making any electrical connections.**

### 2.3 Mounting

Mount the SS-FT26 module under the dash near the steering column.

### 2.4 Wiring

First, identify the GROUND Wire (Black, Pin 5, Group 2, 7201.106) and connect it to a solid battery ground prior to any other connections.

Connect the 12V Module Power (Battery, Red, Pin 1, Group 2, 7201.106) to a fused, switched battery feed (Battery still disconnected on the vehicle). This switched battery feed will power the module and turn it on. This also feeds the Pink Wire (7201.107, IN SW +12, Group 3)

Proceed with connecting the Group 1 (7201.107) Ignition T-Harness to the OEM Ignition connector. Then connect the Group 2 Wires to the Control Interfaces (descriptions called out in the 2.5 Control Interface section). After termination of all wires, connect the the J1 cable to the SS-FT26.

## 2.5 Control Interface (Operation)

Determine the combination of two high idle speed modes needed (RPM1 and RPM-STBY).

The customer needs to supply a switch (Fused, Switched +12V) for the **Module Power** that also feeds **IN1** (7201.106, Pink, Group3). This switch powers the module and starts the module's operation. In addition there are interfaces for START/STOP, and RPM1 modes. These modes are selected by wires in the 7201.107 Group 3 and 7201.106 Group 2.

The **RPM1** Trigger Gnd Pulse on this Wire (Group 3 - Tan, 7201.107) if in RPM STBY, will change the system to RPM1. A second Pulse to Ground will change the system to RPM STBY.

The **RPM1 12V** on this Wire (Group 2 - Violet) if in RPM STBY, will change the system to RPM1 as long as 12V is present. Removing 12V will return the unit to RPM STBY.

The **START/STOP** Switch is connected the START/STOP Input Wire (Group 3 - Brown Wire, 7201.107) to supply a Ground Pulse to Start the Engine (unit will enter into RPM STBY Mode). A second Pulse to Ground will Stop the Engine. RPM messages are used to verify Engine Status. The START/STOP LED indicates switch activity.

**PARK** - (Dk Blue - Group 3, 7201.107) A GND True decoded signal from the Data Bus that indicates the gearshift is in Park Position (LED Flashes if not in position). Output is on if the Module is Powered up.

**PB** (Park Brake) - (White/Black - Group 3, 7201.107) A GND True decoded signal from the Data Bus that indicates if the Park Brake is set (LED Flashes if not set). Output is on if the Module is Powered up

**PTO OUT** (Orange Wire - Group 2) provides a connection to the PTO Solenoid capable of driving up to 10 Amps max (Note PTO OUT and AUX\_OUT should never exceed a combined current of 13 Amps).

**AUX OUT** - 12V Uninterrupted Ignition (Yellow/Red Group 2) is ON whenever Module is Powered and all conditions are met. It is used for support of upfitter components that may need to remain powered during the engine shut-down sequence.

**Aux\_Out Description:** The Aux\_Out (Yellow/Red Wire, 7201.107, Group 3) provides a 12V output for equipment that needs a continuous ignition signal. This output is rated at 3A.

The Power Connections are **Battery** (7201.106, Red wire - Group2)/IN1 SW 12+ (7201.107, Pink wire Group 2) rated at  $\approx$ 15 Amps connected to a fused battery positive, and **Ground** (Black - Group2) connected to Battery Ground according to vehicle integration recommendations..

Group 3 7201.107 and Group 2 7201.106				
Function	Wire Color	Connector Pin #	Harness	Function
IN1 SW +12	Pink	P1-1	107	Connect to a fused Battery +12Vdc source
Module Power	Red	P2-1	106	Connect to a fused Battery +12Vdc source (13 Amps Max)
ADJUST**	Lt Grn	P2-4	106	Adjustment for RPM1 and RPM STBY
PARK	Dk Blue	P1-4	107	Current State of PARK Output (GND True). Output available if the Module is Powered and IN1 SW 12+ is True. (1A Sink Max)
RPM1 (GND)**	Tan	P1-2	107	1st Gnd Pulse will select RPM1, 2nd Gnd Pulse will return the module to RPMSTBY
RPM1 (12V)**	Violet	P1-4	107	12V activates RPM1 as long as it's present. This automatically masks out any selection by a GND Pulse on Pin 6 (RPM1(GND))
START/STOP	Brown	P1-5	107	In4- Start/Stop GND - Pulse to Gnd Starts Engine, 2nd Pulse to Gnd Stops Engine.
GND**	Black	P2-5	106	Battery Ground connect to a solid Battery Ground.
Park Brake	White/Black	P1-15	107	Decoded Park Brake Out (GND True) - Current state of PB, Output available when Module is Powered, and IN1 SW 12+ = TRUE. (1A Sink Max)
BATTERY**	Red	P2-1	106	Connect to a fused Battery +12Vdc source (6 Amps Max)
PTO OUT*	Orange	P1-11	107	PTO Output connect to PTO Solenoid maximum 10 Amps (turns on when SEIC PTO-RLY goes to Ground)
Aux_Out*	Yellow/Red	P1-12	107	Ignition that will remain on during engine stop (maximum 3 Amps) and is disabled by Powering Down the Module (used for Upfitter Ignition dependent components)
* <b>Total Current of PTO_OUT and Aux_Out should not be &gt; 13 Amps DC.</b>				
** These wires are for use with setting remote variable RPM				

SEIC Group 4 7201.107				
Function	SS-FT26 Wire Color	P1 Pin #	FORD SEIC Wire Color	Signal Output Level
PTO RLY	Lt Blue	2	GN/WH Blk Tag	Ground Active Indicates OK to Engage PTO
PTO RPM	Dk Green	10	GN/WH Wht Tag	0.4-4.5V
PTO REQ1	Yel/ Green	16	YEL/GRN	Positive (Out High 6)
PTO REQ2	Orange		BLU/ORG	NOT USED (Mobile Mode)

### SEIC Interface

**PTO RLY (PTO Relay)** - (Lt. Blue, Group 3) Indicates the PTO Relay is OK to be engaged. LED Indicator flashes if not OK - Usually indicates problems with Chassis Ready Conditions.

**SEIC PTO RPM** (Dk Green Wire - Group 3) Used for adjustment of the RPM setting

**SEIC PTO Req1** (Yellow/Green Wire - Group 3)

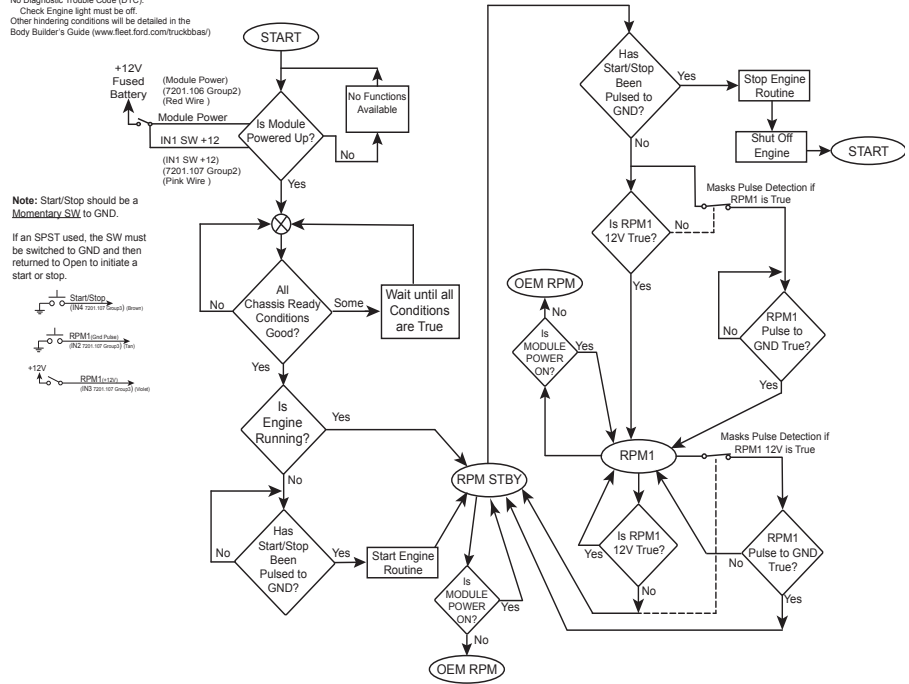
**SEIC PTO Req2** (Orange Wire - Group 3)

### 3. Operational Flow Chart

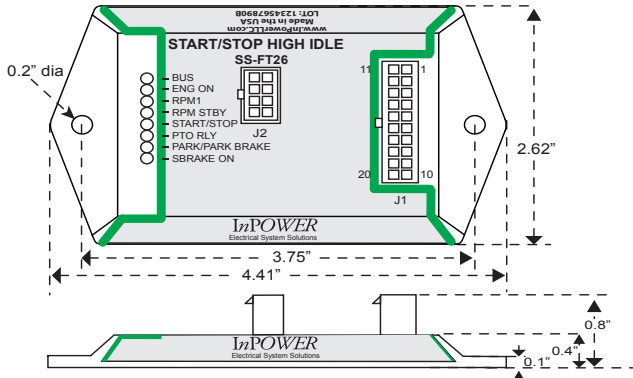
#### Chassis Ready Conditions:

- No vehicle speed
- Accelerator not depressed
- Engine up to Operating Temperature
- Shifter in Park
- No Service Brake (must be depressed for Start) (Simulated for Start/Stop)
- Engine running below base idle
- No Diagnostic Trouble Code (DTC).
- Check Engine light must be off.
- Other hindering conditions will be detailed in the Body Builder's Guide ([www.fleet.ford.com/truckbbas/](http://www.fleet.ford.com/truckbbas/))

### SS-FT26 Operational Flow Diagram



### 4. Mechanical Drawing



## 5.0 Operational Instructions

### 5.1 Quick Start

Please refer to Section 3 (Operation Flow Chart).

Once the SS-FT26 has been properly integrated to the vehicle and wired as per the diagram shown on Page 3, the unit is ready for operation if all Chassis Ready conditions are met.

Apply a fused, switched, +12V to the “Module Power” and “IN SW +12V” inputs. This will start the operation of the unit, if all chassis conditions are met and the engine is running, the module will command the vehicle to go to RPM STBY via the SEIC.

After reaching RPM STBY, if the RPM1 +12V input is true, the truck will go to RPM1. Alternately if RPM1 is not true and it is in RPM STBY, the Start/Stop (ENGINE STOP), and RPM1 (Pulse GND) functions are available.

If the Engine is not running, then the Start/Stop (ENGINE START) is available, which if pulsed to GND, the Module will start the engine and take the engine to OEM RPM, and then RPM STBY. After that, the module can be commanded to go to RPM1 or Start/Stop (ENGINE STOP) can be pulsed for an Engine Stop.

### 5.2 RPM Adjustment Procedure:

1. Activate the mode desired for adjustment by Enabling the unit and then running at the RPM-STBY or by selecting RPM1 with a Gnd pulse on the RPM1 on the Tan Wire (7201.107 Group 3) Line or alternately by applying 12V to the Violet wire (7201.107 Group 3) for RPM1.
2. Locate the ADJUST wire Harness 7201.106 Group 2 (Lt Green) in the harness. Apply +12V to this wire to raise the RPM or to GND the wire to lower the RPM. For each second that +12V is connected to the RPM ADJUST wire (Lt Green, 7201.107, Group 3), the RPM will increase by 50 RPM. Likewise, if the RPM ADJUST wire is tied to GND, the RPM will decrease at a rate of 50 RPM per second. Releasing it from either +12V or Ground will steady the RPM and then lock after 5 seconds.  
**Note:** *For each bump of less than a half second, the RPM will move by 25RPM up or down (depending on whether Adjust is bumped to +12V or GND). If connected to +12V or GND for a second (or more) it will increase by 50 RPM for each second the Adjust is connected to the voltage.*
3. *After the adjustment of the RPM, wait 10 seconds, and then remove the power from the module. After powered down for another ten seconds, restore the power to the module.*

## 6. Troubleshooting

**6.1** Please refer to the Throttle Selector Guide found on our website for the most up-to-date compatibility information.

([www.inpowerdirect.com/electronicthrottlecontrols\\_selector.php](http://www.inpowerdirect.com/electronicthrottlecontrols_selector.php))

**6.2** Check all wiring and make sure all connectors are plugged in firmly.

Refer to the Harness Wire Chart in Section 4 Mechanical, and check that wires are connected to appropriate inputs and outputs.

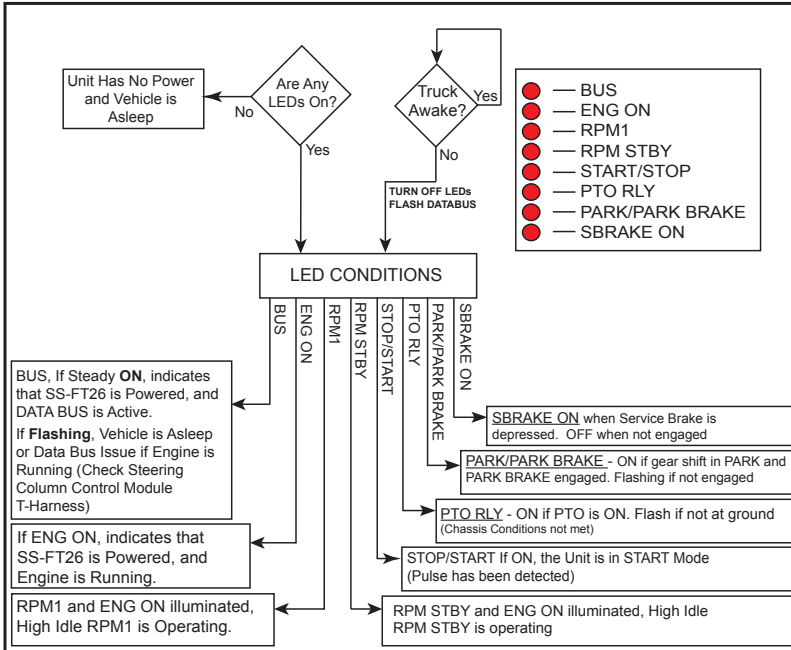
Ford vehicle wire colors and locations may vary substantially between different models and even different model years. **Please obtain and consult the SEIC information for your specific vehicle.** Documentation may be obtained from Ford's *Truck Body Builder Advisory Service* ([www.fleet.ford.com/truckbbas/](http://www.fleet.ford.com/truckbbas/)).

**6.3** A series of 8 LEDs on side of the module provide diagnostic information for troubleshooting purposes. The LEDs are labeled and correspond to RPM modes and safety interlocks necessary to bring the vehicle to high idle. If no LEDs are illuminated, the unit does not have power on Module Power and IN1 SW 12+.

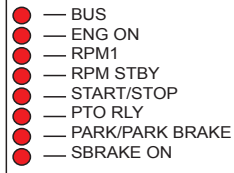
See LED Troubleshooting Flowchart.

**5.4** While engine is in high idle, if one of the Chassis Ready Conditions changes state, the engine will return to factory idle. The unit then will flash the diagnostic LEDs (BUS, ENG ON, PTO RLY, PARK/PARK BRAKE, SBRAKE ON) to indicate the cause of the high idle deactivation. Then, once conditions are restored, after a ten second delay, it will return the vehicle to the preset high idle speed. This feature may be used to troubleshoot intermittent problem.

## 7.0 LED Troubleshooting



### SS-FT26 LED INDICATORS



DATA BUS – ON if Data Bus is Active

(Solid if CAN Traffic, Blinks if ON but Truck is Asleep)

ENG ON – ON if engine is running

RPM1 – ON if high idle is using the RPM1 set point

RPM STBY – ON if high idle is using the rpm standby set point

START/STOP – ON Indicates the START/STOP input is activated

PTO RLY – ON if PTO RLY is at ground, flashes if not

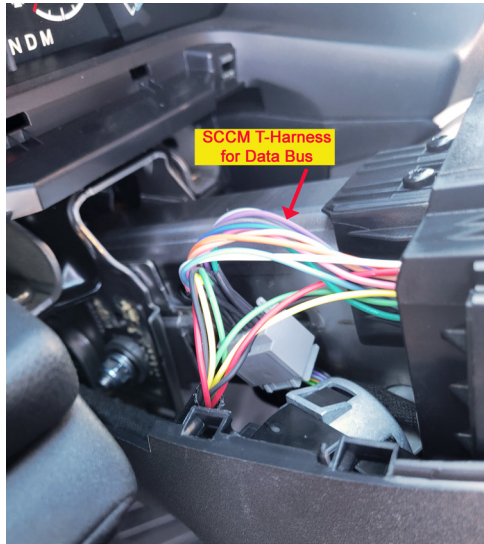
PARK/PK BRK – ON if in Park and Park Brake Engaged Flashes if Problem.

SBRAKE ON if Service Brake is pressed.

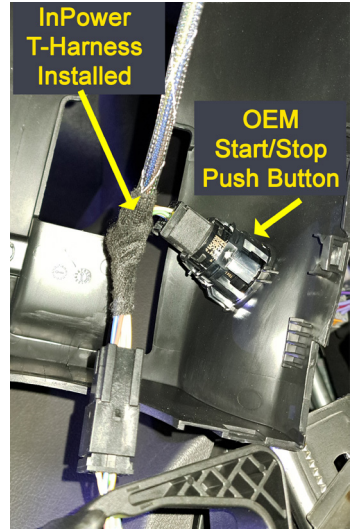
Comes on for Start/Stop engagement, stays on for a couple seconds after Engine Starts and then shuts off. In order for Engine to be started, the Body Control Module has to detect the Service Brake is depressed. Comes ON during Remote Starting sequence.

## 8.0 Installation Figures

### Steering Column Control Module Location (Data Bus) T-Harness



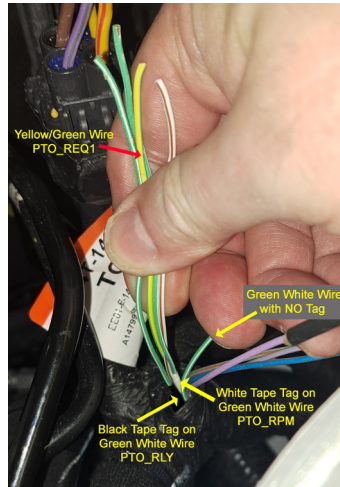
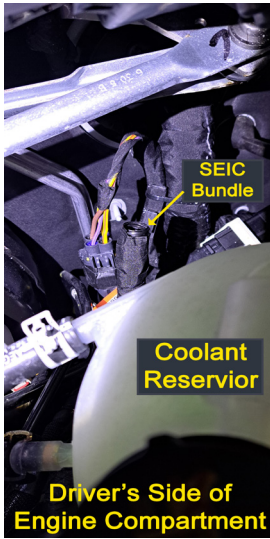
## Installation of Ignition Switch T-Harness



## Installation of Service Brake T-Harness



# Identification of SEIC Wiring



## 9.0 Contacts:

### Contact Us

InPower LLC  
8311 Green Meadows Drive  
Lewis Center, Ohio 43035  
740-548-0965  
[www.InPowerLLC.com](http://www.InPowerLLC.com)