

Idle Timer Controller - ITC516-A 2026 Ford Transit (H-ITC516-A)



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Overview

The ITC516 system will shut off gas or diesel engines that are left idling for an extended period of time in Park or Neutral. The default timer works as follows: with the Park Brake disengaged, the engine will shut off after 15 minutes of idling. If the Park Brake is applied, the idle time is decreased to 5 minutes. This is similar to CARB diesel anti-idling requirements.

Installation Instructions

Disconnect vehicle battery before proceeding with installation.



It is the installer's responsibility to route and secure all wiring harnesses where they cannot be damaged by sharp objects, mechanical moving parts and high heat sources. Failure to do so could result in damage to the system or vehicle and create possible safety concerns for the operator and passengers.

It is important to avoid placing the module where it could encounter strong magnetic fields from high current cabling connected to motors, solenoids, etc. Also avoid radio frequency energy from antennas or inverters next to the module. Finally, avoid high voltage spikes in vehicle wiring by always using diode clamped relays when installing upfitter circuits.

CAUTION

All electronic products are susceptible to damage from Electrostatic Discharge or ESD. Ground yourself before handling or working with the module and harnessing by first touching chassis ground, such as the barrel of the cigarette lighter.

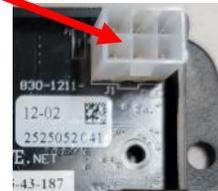
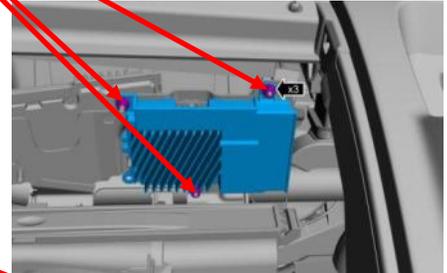


ITC516 Module

Remove the lower dash panel below the steering column area and find a suitable location to mount the Idle Timer Controller module. Locate the module in an area away from any external heat sources (engine heat, heater ducts, etc.). Do not mount the module until all wire harnesses are routed and secure. The last step of the installation is to mount the module.

Gateway Plug and Play Harness (H-ITC516-A)

1. Locate the vehicles Gateway Module. It will be mounted behind the glove compartment.
2. Press the tabs inward on the sides of the glove compartment and fully lower it.
3. Remove the 3 nuts securing the Gateway module to the vehicle.
4. Remove the 26-pin connector from the side of the Gateway module and plug into the mating connector on the H-ITC516-A harness.
5. Plug the male 26-pin connector from the H-ITC516-A harness into the Gateway module.
6. Reinstall the Gateway module and the glove compartment.
7. Plug the free end of the Data Link harness into the mating 6-pin connector on the H-ITC516-A module.



ITC516-A Harness (840-00433)

Most Ignition Switches are no longer designed to supply power directly to vehicle systems that require key position dependent power. For this reason, many vehicles have electronically controlled Ignition Power outputs that are electrically isolated from the actual Ignition Switch signals. If the desired isolated Ignition Output is not available on a vehicle, a relay must be installed to separate the ignition switch signal from the switched power the load requires. The relay that is used must include a voltage suppression diode to prevent damaging sensitive electronics.

Transit Ignition Switch Connector (P5 Plug and Play)

Release the column tilt lever. Locate the ignition switch connector and disconnect it from the switch, or push the ignition switch out of the shroud and disconnect it.

1. Plug the OEM connector into the mating connector on the Intermotive Ignition harness.
2. Plug the Intermotive Ignition harness into the OEM ignition switch.
3. Route the harness out the back of the shroud to the modules mounting location. Attach the 12-Pin connector of the 840-00433 Harness to the ITC516 Module 12-pin connector.

Optional Shutdown indicators and override inputs

There are 3 optional signals with "flying lead" wires provided for connecting to external equipment or devices as described below. These three signals are located on the ITC516-A modules 12 pin connector.

Warning beeper, lamp or LED output - Orange wire, Pin #2. This signal provides 12V when active. The maximum allowed draw on this circuit is 1/2 amp. If an LED is used it must also have an integral resistor wired in series. Attach this Orange wire to the positive input for the LED or beeper. Attach a ground wire to the negative input. This output pulses repeatedly during the final 30 seconds of Shutdown.

Override High input - Green wire, Pin #4. Applying 12V to this input will prevent engine shut down, and can be connected to equipment such as a PTO, pumps, compressors, etc.

Override Low input - Blue wire, Pin #5. Applying ground to this input will prevent engine shut down, and can be connected to equipment such as a PTO, pumps, compressors, etc.

Ensure that unused flying leads will never make electrical contact with anything by taping, cutting, or extracting the wires (pin extraction requires Molex tool).

ITC516 Module Mounting

Ensure all harnesses are properly connected and routed, and are not hanging below the dash area. Mount the module using screws or double sided tape and reinstall all removed panels.

Reconnect vehicle battery

If the module's factory default settings do not need to be changed (below), proceed to the Post Installation Check List section.

Optional shutdown disable key switch

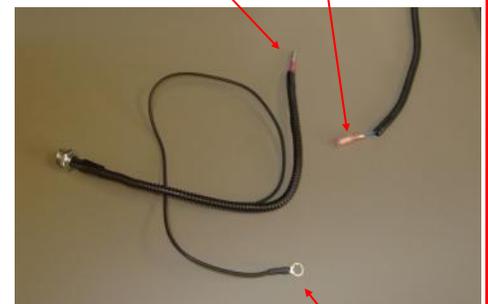
1. Locate a suitable place on the dash to mount the Key Switch, within 30" from the ITC module.
2. Drill a 1/2 inch hole to mount the Key Switch, being careful not to damage OEM harnessing behind the dash.
3. Mount the Key Switch onto the dash.
4. Locate the ITC 12 pin connector Blue wire, Pin #5.
5. Connect the male key switch bullet connector to the ITC 12 Pin connector Blue wire, Pin #5 female bullet connector.
6. Connect the eyelet connected to the Black wire to a chassis ground.

This keyed switch will enable or disable the idle timer function

- To turn the idle timer on, insert the key into the switch and position the arrow in the up position.
- To turn the idle timer off, insert the key in the switch and position the arrow pointing to the right.

ITC 12 pin connector
Blue wire, pin #5

Blue wire to Key Switch

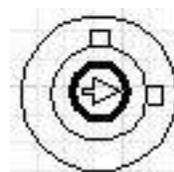


Black wire to a chassis ground

Idle Timer On



Idle Timer Off



Reconfiguring the Shut Down Timer and Minimum Engine Shut Down Temperature (optional)

Requirements

- USB to Serial Communication Cable (part number a-IPU) which is a one time purchase. This kit is required for all programming and is recommended to be kept in a central location.
- Laptop computer (programming is done while the module is on the vehicle).

Reconfiguration

1. Ensure that the proper drivers are installed for the USB to Serial Communication cable provided by InterMotive. All driver files are located online at: <http://www.ftdichip.com/Drivers/VCP.htm>
2. Find the correct drivers for your system and follow the steps to download the latest version (located under the "Driver Version" heading). If unsure about the installation process, please contact InterMotive for further assistance.
2. Once the installation process is complete, plug the Communication cable into one of your computer's USB ports.
3. Ensure the vehicle's key is off and plug the other end of the download cable into the port labeled 'COMM' on the module.
5. Open the communication application HyperTerminal. This program can be found under: Start > All Programs > Accessories > Communications > HyperTerminal.
6. A prompt will appear to give this connection setup a name. It's recommended to use something meaningful such as "ITC Config".

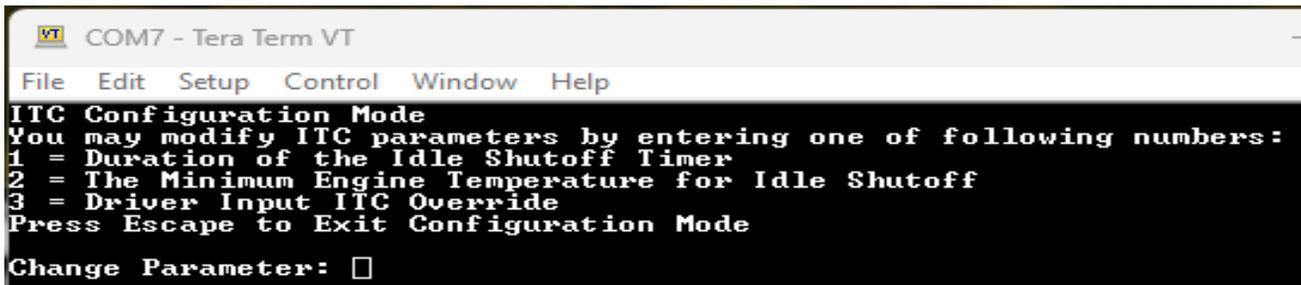
The next window will prompt to select the COM port to setup the connection on. Typically, the highest numbered COM port will be the InterMotive Communication cable.

Note: This can be double-checked on Windows by right-clicking on 'My Computer' and selecting 'Properties.' From this window select the 'Hardware' tab and click on 'Device Manager.' In the Device Manager window, expand the 'Ports' menu and the download cable will display as 'USB Serial Port.'

Reconfiguring the Shut Down Timer and Minimum Engine Shut Down Temperature (continued)

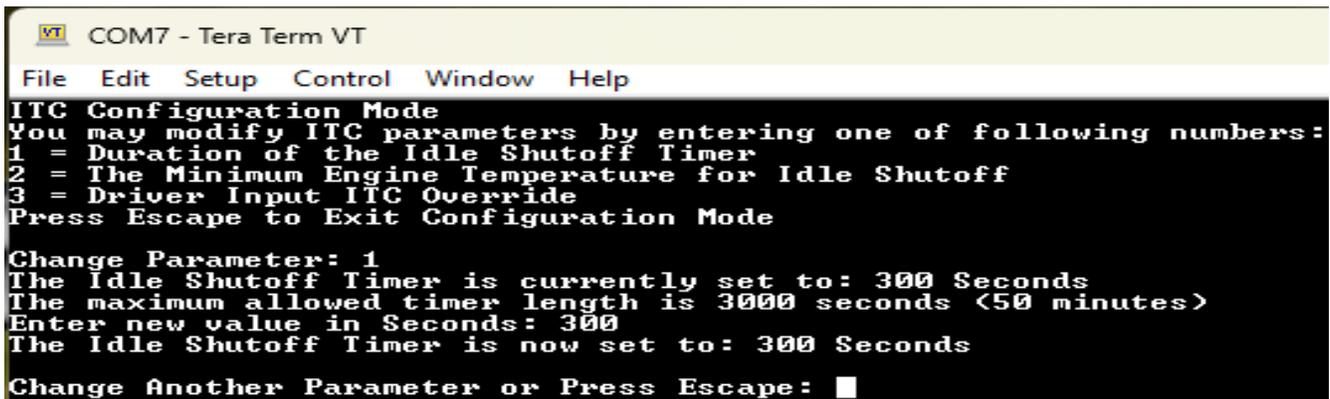
In the next window, several of the default parameter for the Port Settings need to be changed. Change the Bits per second to: **57600**, Data bits: **8**, Parity: **None**, Stop bits: **1**, and Flow control: **None**. HyperTerminal setup is now complete. The ITC516 wakes up with the vehicle CAN network. This can be accomplished by opening a car door, turning the ignition to ACC or RUN/ON, etc.

1. Wake up the ITC516 module and text will display on the open HyperTerminal window.
2. If text does not appear, unplug the 6 pin connector from the ITC516 module and plug the connector back in.
3. If text still does not appear, go to File > New Connection and try re-configuring the HyperTerminal as described above. If unsuccessful, contact InterMotive for further assistance.
4. With communication established, type in the word "config" (followed by the enter key) and the screen will look like Screen Shot 1.



```
COM7 - Tera Term VT
File Edit Setup Control Window Help
ITC Configuration Mode
You may modify ITC parameters by entering one of following numbers:
1 = Duration of the Idle Shutoff Timer
2 = The Minimum Engine Temperature for Idle Shutoff
3 = Driver Input ITC Override
Press Escape to Exit Configuration Mode
Change Parameter: □
```

5. Enter the number (1,2, 3) of the parameter to be changed:
6. If 1 is selected, the screen will look like Screen Shot 2. Key in a new Idle Shutdown Time, in seconds, followed by the Enter key. Changing this value from the default setting will cause Park Brake to have no effect on the Idle Timer duration. To restore the default setting, enter the number 10,000 followed by the Enter key.



```
COM7 - Tera Term VT
File Edit Setup Control Window Help
ITC Configuration Mode
You may modify ITC parameters by entering one of following numbers:
1 = Duration of the Idle Shutoff Timer
2 = The Minimum Engine Temperature for Idle Shutoff
3 = Driver Input ITC Override
Press Escape to Exit Configuration Mode
Change Parameter: 1
The Idle Shutoff Timer is currently set to: 300 Seconds
The maximum allowed timer length is 3000 seconds <50 minutes>
Enter new value in Seconds: 300
The Idle Shutoff Timer is now set to: 300 Seconds
Change Another Parameter or Press Escape: ■
```

7. If 2 is selected, the screen will look like Screen Shot 3. Key in a new minimum warm up temperature in degrees F, followed by the Enter key.

```
VT COM7 - Tera Term VT
File Edit Setup Control Window Help
ITC Configuration Mode
You may modify ITC parameters by entering one of following numbers:
1 = Duration of the Idle Shutoff Timer
2 = The Minimum Engine Temperature for Idle Shutoff
3 = Driver Input ITC Override
Press Escape to Exit Configuration Mode

Change Parameter: 2
The Minimum Engine Temperature for Idle Shutoff is: 100 degrees F
Enter new value up to 200 degrees F: 100
The Minimum Engine Temperature for Idle Shutoff is now: 100 degrees F
Change Another Parameter or Press Escape: █
```

8. If 3 is selected, the screen will look like Screen Shot 4. Key in whether the driver can override the timer (Enable (Default)) or not (Disable).

```
VT COM7 - Tera Term VT
File Edit Setup Control Window Help
ITC Configuration Mode
You may modify ITC parameters by entering one of following numbers:
1 = Duration of the Idle Shutoff Timer
2 = The Minimum Engine Temperature for Idle Shutoff
3 = Driver Input ITC Override
Press Escape to Exit Configuration Mode

Change Parameter: 3
Driver Input ITC Override: Enabled
1 = Enable
2 = Disable
Change to Parameter: 1
Driver Input ITC Override is now:Enabled
Change Another Parameter or Press Escape: █
```

9. Press ESC key when parameters are set correctly.
10. When finished, key off ignition and disconnect the Communication cable.

Post Installation Check List

Putting the module into Shut-Off Test Mode:

Start the engine. Test mode can be entered by holding down the Service Brake then setting and releasing the Park Brake 4 times within a 20 second period. When successful, LED10 on the ITC516-A module will be lit. Release the Service Brake. When this Test Mode is active, the shut off timer is reduced to 15 seconds. LED #9 will come on for 1 second at the start of the shut off timer.

A Park Brake, Service Brake, or Accelerator Pedal input will reset the timer. LED #9 will light to verify each input has reset the timer. Also verify function of any light or buzzer connected to the optional indicator output. During the final 5 seconds the indicator should flash or sound multiple times until the engine is shut off. Confirm LED10 goes off when engine is shut off. Turn off the ignition. Status LED will light briefly.

Putting the module into Diagnostic Mode:

Place the ignition in the Run position. Diagnostics mode is entered by pressing the red button labeled "Test" on the Module. LED #2 will light to verify that the module is receiving High speed CAN Data.



If the ITC516-A fails any step in the Post Installation Check List, review the installation instructions and check all connections. If necessary, call InterMotive technical support at (530) 823-1048.

Reinstall the column trim cover and under dash panel.

LEAVE IN VEHICLE Idle Timer Controller - ITC516-A 2026 Ford Transit (H-ITC516-A)



Operating Instructions

The ITC516 system is an idle timer engine shut off system. It automatically stops the engine if the vehicle is left idling for an extended period of time, in Park or Neutral, without operator input.

Default operation: with the Park Brake disengaged the engine will shut off after 15 minutes of idling. If the Park Brake is applied, the idle time is decreased to 5 minutes.

A custom timer length and minimum engine warm-up temperature may be set by the vehicle manufacturer. When that time expires and the engine is above warm up temp (default 100° F) the engine will shutoff regardless of Park Brake state.

Ignition Power Restore and Restart

ITC516 simulates a press of the Ignition Button to shut down the engine. The vehicle can be restarted as normal afterwards.

Optional shutdown indicators

An installer supplied optional indicator light or buzzer may be wired to the Shut off Indicator Output.

If a light or buzzer is connected to the optional indicator output, it will flash or sound repeatedly during the final 30 seconds prior to Shut off.

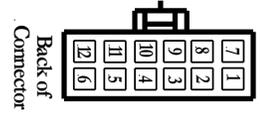
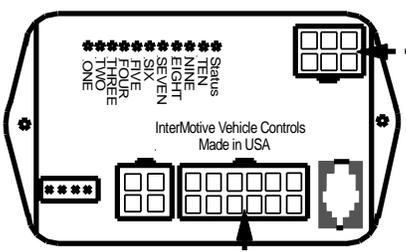
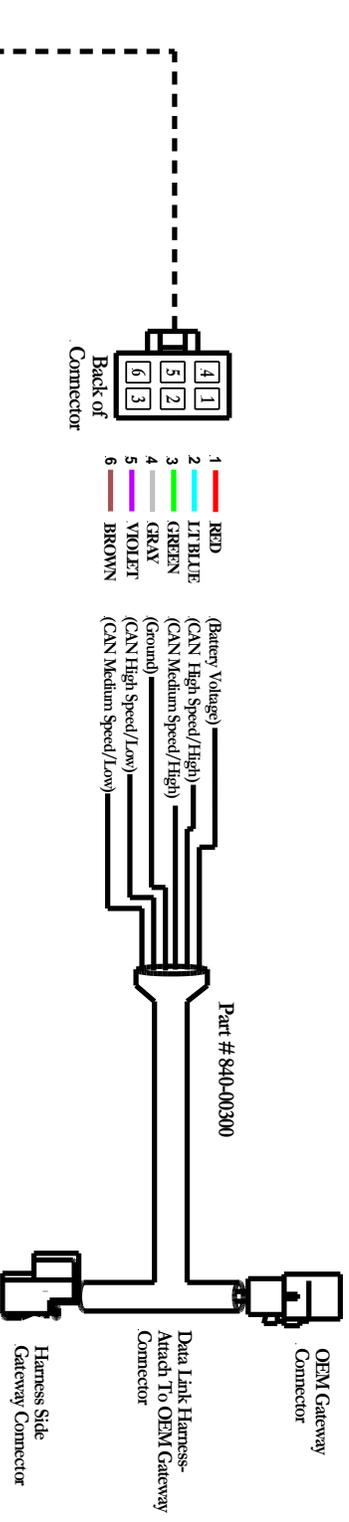
Timer override inputs

If the driver applies the Parking Brake, Service Brake, or presses the Accelerator Pedal, the shut off timer will be reset.

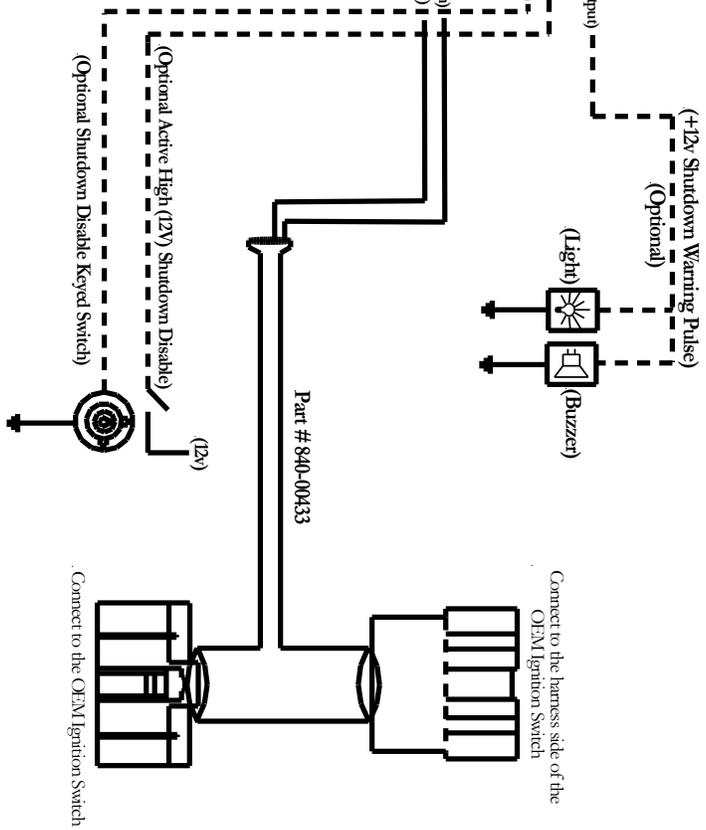
Timer Override inputs are provided to allow vehicle equipment (PTO, compressor, etc....) to disable the shut off timer when equipment is in use.

Once the optional equipment is switched off the ITC516 will resume Idle Timer sequence.

P5 Plug and Play Ignition Switch Connector



1	RED	OPEN	(N/C)
2	ORANGE	OPEN	(Shutdown Indicator Output)
3	GREEN	GREEN	(N/C)
4	BLUE	BLUE	(Override High Tone) #
5	GRAY	OPEN	(Optional Keyed Switch)
6	VIOLET	OPEN	(N/C)
7	BROWN	OPEN	(N/C)
8		GREEN/WHITE	(Ignition Active High)
9		YELLOW/GRAY	(Ignition Active Low)
10		OPEN	(N/C)
11		OPEN	(N/C)
12		OPEN	(N/C)



Submit product registration at www.intermotive.net

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