# FORD INSTALLATION INSTRUCTIONS Expedition/Navigator 1997-2002

PN: SI 440 U

SECURE-IDLE is an ignition switch bypass device designed to provide all the electrical functions that the OEM ignition switch normally provides. For proper operation and long term performance, <u>DO NOT deviate from the wire connection instructions.</u>

For each wire connection, remove approximately one half inch of insulation from the OEM wire, but *DO NOT cut through the wire*. Cutting the wires causes high resistance and a possible failure point. Strip approximately one half inch of insulation from the end of the SECURE-IDLE wires to be attached to the OEM wires. Wrap the SECURE-IDLE wire around the bare area of the OEM wire and solder the connection. Tape the connection thoroughly after it cools.

<u>DO NOT use scotch lock type pinch through connectors</u>. These connectors cannot handle the higher amperages of the ignition circuits, and will void the SECURE-IDLE warranty.

Use the wiring diagram to locate the correct wire and pin location on the backside of this page.

#### Installation

- 1. Remove the lower dash panel under the steering column to access the OEM ignition switch which is mounted on the steering column. Mount the SECURE-IDLE unit near the ignition switch.
- Locate a good metal ground and connect the Black SECURE-IDLE wire.
- 3. Locate the OEM ignition switch and wiring. Remove the insulation from the **GRAY/YELLOW** wire, Pin A4 Circuit 687. Attach the **RED** 14 Ga. SECURE-IDLE wire according to the above instructions. This OEM wire will be hot in RUN only.
- 4. Locate the **BLACK/LT. GREEN** wire, Pin 1, Circuit 964. Attach the **WHITE** 14 Ga. SECURE-IDLE wire according to the instructions. This OEM wire will be hot in START and RUN.
- 5. Locate the **RED/BLACK** wire, Pin A3, Circuit 1040. Attach the **YELLOW** SECURE-IDLE wire according to the instructions. This OEM wire will be hot in RUN ONLY.
- 6. Locate the LT. GREEN/VIOLET wire, Pin B4, Circuit 1050. Attach the GRAY FUSIBLE LINK wire according to the instructions. Connect the RED 10 Ga. wire to the FUSIBLE LINK by way of the quick disconnect connector. This OEM wire will be hot at all times.
- 7. Locate the **RED/LT. BLUE** wire, Pin START, Circuit 32. Cut this wire into, being sure to leave enough room to strip back the ends and install Butt connectors. Strip back the ends of the OEM wires app. one quarter of an inch. Crimp on the **BLUE** 14/16 Ga. Butt connectors. Connect the **GREEN** SECURE-IDLE wire to the **RED/LT. BLUE** wire end which leads back into the wire harness. Connect the **BLUE** SECURE-IDLE wire to the **RED/LT. BLUE** wire end which leads to the ignition switch. This OEM wire will be hot in START ONLY.
- 8. Locate the **BLACK/LT**. **GREEN** wire, Pin A1, Circuit 297. Attach the **VIOLET** SECURE-IDLE wire according to the instructions. This OEM wire will be hot in ACC. and RUN.
- 9. Connect the **BROWN** SECURE-IDLE wire to either of the following options:
- 1. To Back Up Lamps, **LT. BLUE/PINK** wire at the transmission Park/Neutral Switch. (Do not use with flashing back up lights).
- 2. To Park Brake Pedal Switch, LT. GREEN/RED wire.
- 3. To a customer supplied SPST Switch, BROWN wire to Pin 1,

Secure-Idle, Inc. 210 W. Lincoln St. Saybrook, IL 61770 Ph. 309.475.2286 Fax 309.475.2140 www.secure-idle.com

customer supplied wire from Pin 2, to Ground.

#### Testing the SECURE-IDLE U Universal Unit

1. With the shift lever in PARK

OPTION 1. Follow standard test procedure.

OPTION 2. Depress Park Brake Pedal and then follow standard test procedures. To disengage SECURE-IDLE unit, insert the ignition key and turn to the RUN position, release the Park Brake.

OPTION 3. Turn the SPST switch to the ON position and then follow standard test procedures. To disengage SECURE-IDLE unit, insert the ignition key and turn to the RUN position turn the SPST switch OFF.

### **Testing the SECURE-IDLE Unit**

- 1. With the shift lever in **PARK** turn the key to the **ON** or **RUN** position. Push and release the **Red** push button switch. This activates the SECURE-IDLE unit. You will hear a single click when the button is pushed.
- 2. Turn the key to the **OFF** position. Test all OEM electrical functions, ie: blower motor, power windows, radio, etc.
- 3. Turn the key to the **START** position, the starter motor should not crank
- 4. Pull the shift lever from **PARK** into **DRIVE** and then back into **PARK**. This resets the SECURE-IDLE unit. Turn the key to the **OFF** position.
- 5. Start the vehicle; activate the SECURE-IDLE unit by pushing and releasing the **Red** push button.
- 6. Turn the key to the **OFF** position and remove the key. The vehicle will remain running as it is now under SECURE-IDLE control, and the steering wheel and gear shift lever is locked.
- 7. Recheck all **RUN** and **ACCESSORY** electrical functions while the vehicle is under SECURE-IDLE control.
- 8. With the brakes applied, insert the key and turn to the **ON** or **RUN** position. Move the gear shift lever from **PARK** to **DRIVE** then back to **PARK**. This resets the SECURE-IDLE unit and the vehicle is now back under OEM ignition switch control.
- 9. Turn the key to the **OFF** position and the engine will stop.
- 10. Tie wrap all loose wires and replace the removed panels.
- 11. To disable the SECURE-IDLE unit, pull apart the quick disconnect. It is located on the **RED** 10 Ga. wire coming out of the SECURE-IDLE unit.
- 12. Instruct all drivers on the proper operating, reset procedures, and the location of the quick disconnect of the SECURE-IDLE unit.
- 13. In the unlikely event that the engine will not turn off after the unit has been reset, the driver should disable the unit by pulling apart the quick disconnect.
- 14. If the engine stalls while under SECURE-IDLE control, the unit must be reset before the engine can be restarted.

## Wiring Diagram for Ford Expedition/Navigator PN: SI 440 U

Contact Information: Jim Hoffman, Engineer, at 260.517.9580

