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INSTRUCTION MANUAL

ENGINE IDLER MODULE

PART OF A HIGH IDLE SYSTEM

ENGINE IDLER
MODEL #091-84-005

3 YEAR WARRANTY

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INTRODUCTION

The 091-84-005 Engine Idler model is part of a high idle system that can be installed on either gasoline or diesel engines. This device permits a vehicle operator to increase engine RPM to obtain more alternator output. In order to move the throttle mechanism or interface with electronic controlled engines additional components are required.

DESCRIPTION

This module interfaces with the Brake Pedal Switch, Park/Neutral Safety Switch, a solenoid vacuum valve, a throttle actuator and in some installations a Voltage Monitor. It has High Idle "ON" and "OFF" pushbuttons on its front face allowing the operator to switch in and out of HIGH IDLE when the vehicle is in Park or Neutral. An LED indicator on the front face is illuminated when the engine is in HIGH IDLE.

INSTALLATION

Typical installations on gasoline and diesel engines are illustrated in figures 1 and 2. Mount actuator and solenoid valve in an appropriate location and connect the actuator output to the throttle mechanism. (Note: The actuator and solenoid valve must be purchased seperately. Be certain that the ball chain or other coupling does not restrict throttle motion at full closed throttle or wide-open throttle. Connect solenoid valve input to a source of vacuum for gasoline engines or pressure for diesel engines. Pipe the solenoid valve output to the actuator as illustrated in figure 1 or figure 2. Install wiring as shown.

OPERATION

The High Idler receives its power from the ignition switch and functions only when the ignition switch is either "ON" or in the ACC. position. High Idle is automatically disabled under any of the following conditions:

1. Operator depresses the "OFF" pushbutton on the Engine Idler
2. Operator depresses the brake pedal
3. Operator places the transmission into Drive or Reverse
4. Operator turns off the ignition switch

TEST PROCEDURE

1. With the transmission switch in PARK turn the ignition switch to the Accessory position. The LED on the Engine Idler should remain OFF.

2. Press the "ON" switch on the Engine Idler. The LED on the Engine Idler should turn ON.

3. Move the transmission to Drive or Reverse. The LED on the Engine Idler should turn OFF.

4. Place the transmission in PARK and press the "ON" switch to turn the LED ON again.

5. Depress the Brake Pedal. This should turn the LED OFF.

6. Start the engine and allow it to warm up with the transmission in PARK mode.

7. Depress the ON switch on the Engine Idler and adjust the coupling to the actuator and the stroke to obtain the desired engine RPM. Re-check the RPM by turning the unit ON and OFF a few times.

CAUTION

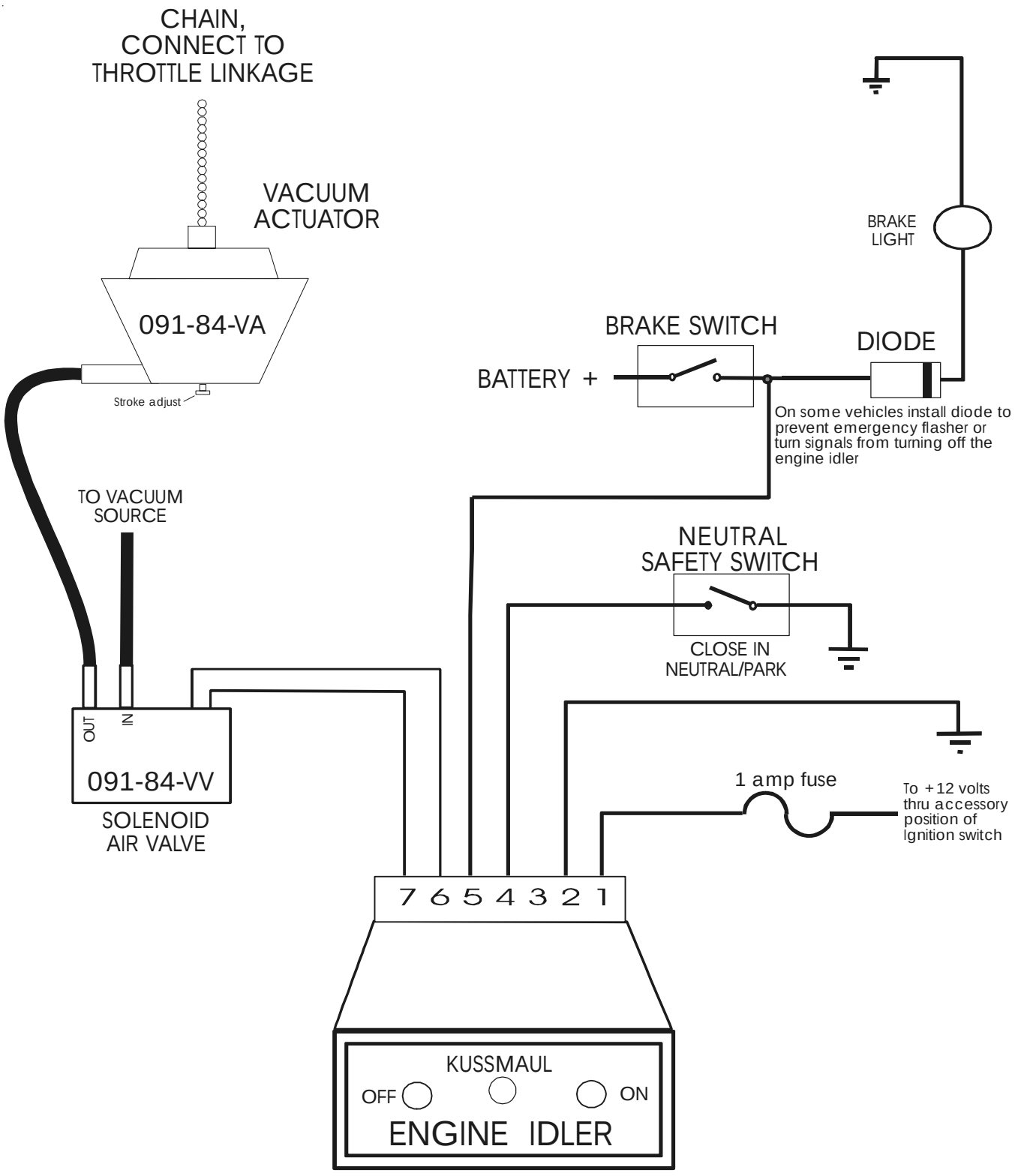
FORD INSTALLATIONS

FORD, in many installations uses a starter solenoid which has one side of the coil grounded. The neutral safety switch is then placed in the supply side of the solenoid coil.

This configuration creates a considerable voltage spike when the vehicle is started.

A diode must be placed across the starter solenoid in these installations to prevent damage to the engine idler.

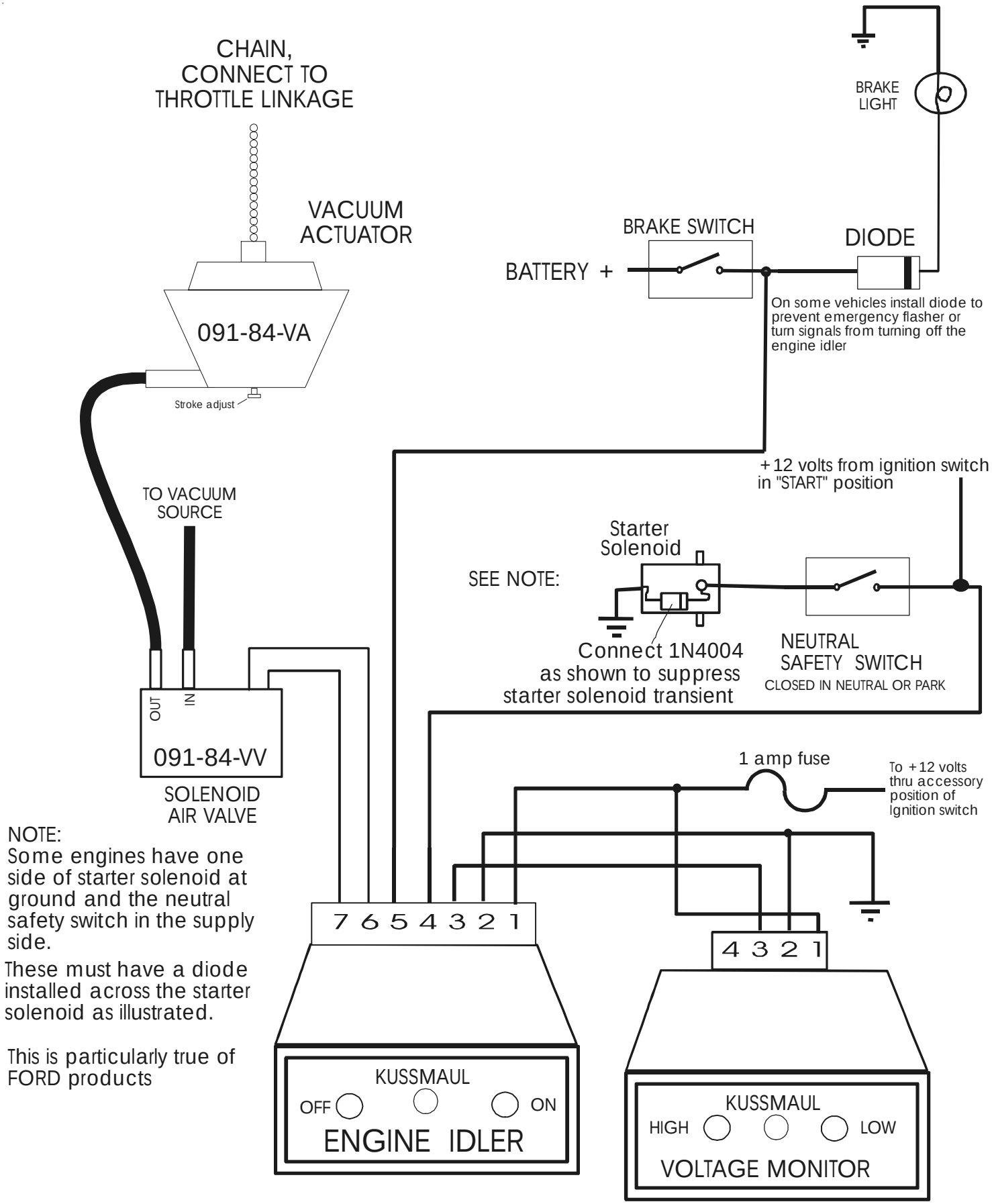
See the appropriate wiring diagram for diode installation details.



ENGINE IDLER INSTALLATION

FOR GASOLINE ENGINES WITH A VACUUM SOURCE

Figure 1



NOTE:
Some engines have one side of starter solenoid at ground and the neutral safety switch in the supply side.

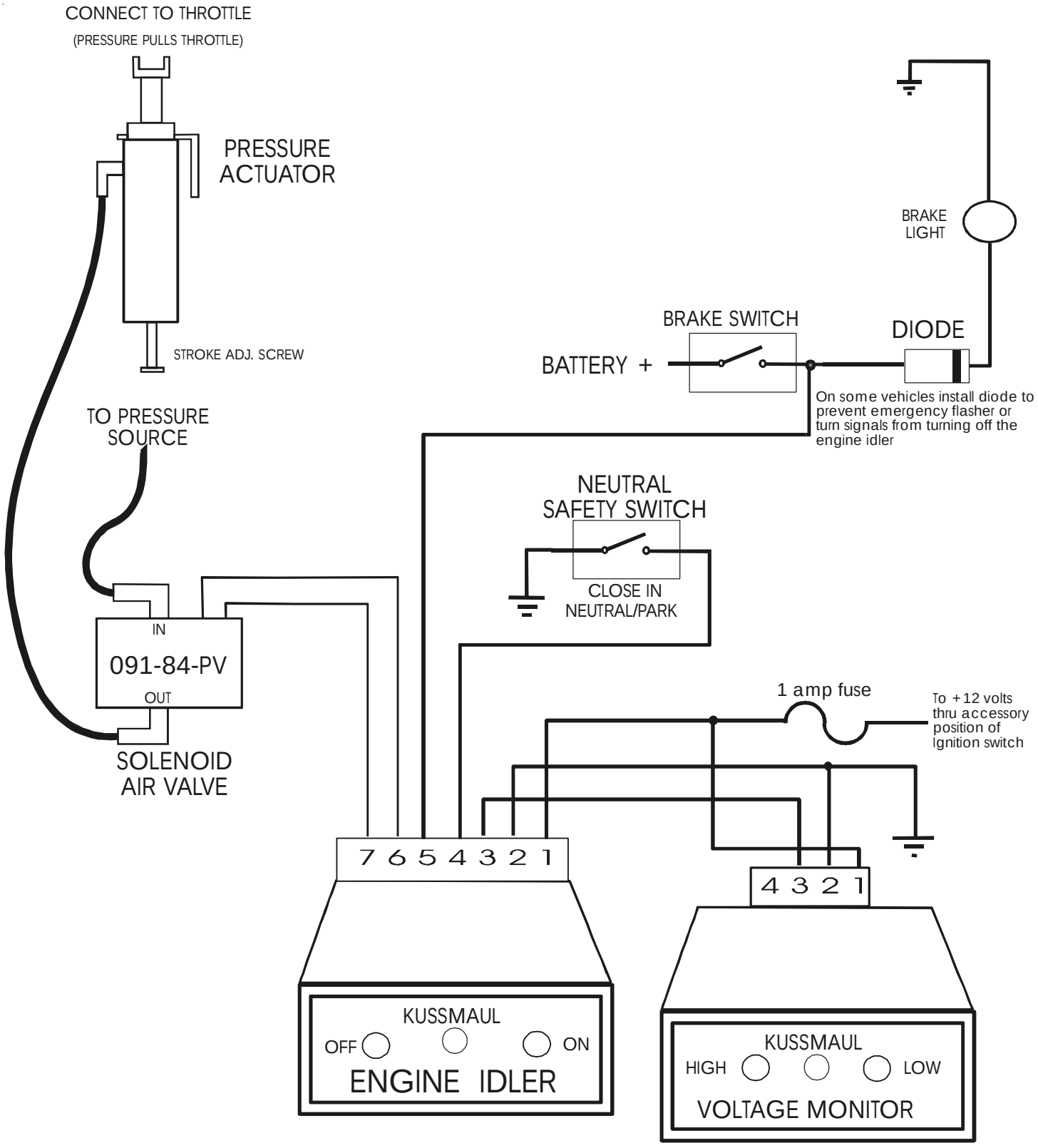
These must have a diode installed across the starter solenoid as illustrated.

This is particularly true of FORD products

VOLTAGE MONITOR & ENGINE IDLER

INSTALLATION AND WIRING DIAGRAM FOR ENGINES WITH A VACUUM SOURCE

Figure 2



VOLTAGE MONITOR & ENGINE IDLER

INSTALLATION AND WIRING DIAGRAM
FOR DIESEL ENGINES WITH AIR PRESSURE AVAILABLE

Figure 2

INSTALLATION RECORD & WARRANTY

Date Installed _____

Installed By _____

Vehicle Identification _____

Vehicle Owner _____

WARRANTY

All product of Kussmaul Electronics Company Inc. are warranted to be free of defects of material or workmanship. Liability is limited to repairing or replacing at our factory, without charge, any material or defects which become apparent in normal use within 3 years from the date the equipment was shipped.

Kussmaul Electronics Company, Inc. shall have no liability for damages of any kind to associated equipment arising from the installation and /or use of the Kussmaul Electronics Company, Inc. products. The purchaser, by the acceptance of the equipment, assumes all liability for any damages which may result from its installation, use or misuse, by the purchaser, his or its