

**PENNTEX HIGH IDLER
'96 FORD FD1060 (5.9 CUMMINS) B-SERIES CHASSIS
Installation and Testing**

INSTALLATION:

NOTE: Modification to chassis and idler may be necessary.

*******Disconnect the Ground Cable from ALL batteries*******

1. Mount idle controller (inside vehicle) in a location that is both easily accessible to driver and within wiring harnesses reach. (Harness extensions for controller are available)
2. Plug idler harness into idle controller and route harness under dash.
3. Connect the red wire from idler to the "Accessory feed" terminal on the main terminal strip (fig. 1-A) [driver's side kick panel]. This wire should provide +12v to the idler when the ignition switch is in run position.
4. Connect the orange wire from idler to the "Starter interrupt +" terminal on the main terminal strip (fig. 1-B). This wire should pull to ground through the transmission's *Neutral* switch & the starter motor relay's coil when the gear selector is in *Neutral*. If other starter interlock's are installed (ie. chair lifts, door, driver's seat occupancy, etc.) then they will also disengage idler. If this is not desirable then connect to the "Starter interrupt -" terminal instead.
5. Connect the green wire from idler to the "Stop lamps" terminal on the main terminal strip (fig. 1-C). This wire should pull to +12v only when the brake pedal is pressed.
6. Connect the black wire from idler to chassis ground.
7. Drill 1/2" dia. hole through fire wall and feed harness through to grommet. Make certain that the grommet is seated properly. Tape and tie any loose wires or harness away from sharp edges and moving parts.
8. Mount C.B. & Relay close to the starter motor relay, and away from heat sources such as exhaust manifolds or direct exposure to water spray from tires.
9. Route the idler harness over to relay. Secure harness away from heat sources, sharp edges or moving parts.
10. Connect the blue wire to relay terminal #85.
11. Connect the gray wire to relay terminal #86.
12. Connect the Circuit Breaker's "Bat." terminal to the "BATTERY" terminal on the starter motor relay.
13. Check to insure that the solenoid's idle control nut and cable housing are fully retracted.
14. Mount solenoid within cable's reach of throttle bracket but away from direct exposure to high heat sources or water spray such as in fig. 2.
15. Ground the negative terminal of the solenoid to a suitable high current ground. Solenoid mounting screws may be used if solenoid is mounted to frame/chassis.
16. Connect the positive terminal of the solenoid to relay terminal #87.
17. Secure ALL loose wires away from heat sources, sharp edges or moving parts.
18. Drill a 3/8" (0.375 in.) diameter hole in the throttle bracket as shown in fig. 3-A.

19. Mount idler throttle cable housing to bracket as in fig. 3.
20. Thread idler cable through factory pivot & attach cable clamp w/ approx. 1/4" of slack between pivot and clamp (fig. 3-B).
21. Lubricate cable & pivot with white lithium general purpose grease (not provided).
22. Operate throttle lever manually to insure that cable slides through pivot properly without obstruction, hanging or jamming.
23. Reconnect all battery ground cables.

TESTING AND ADJUSTMENT

1. Turn ignition switch to run position, but **DO NOT START ENGINE**. The "low" battery indicator (red) should be lit. After 10 seconds the "High Idle" indicator (yellow) should light up.
2. Press the brake pedal. The "High Idler" indicator (yellow) should turn off. Release the brake and it should come back on with no delay.
3. Put the emergency brake on, press the brake pedal and move the gear shift to "Drive". Release the brake pedal. The "High Idle" indicator (yellow) should not be lit. Put the shifter in "neutral". The "High Idle" indicator should light.
4. Start engine and press the "manual engage" button. Allow engine to warm up. Turn on all possible engine and electrical loads. Using solenoid's adjustment nut adjust engine RPM to a level adequate to maintain battery voltage above 12.75 volts (1000 to 1500 RPM). Tighten solenoids locking nut after final adjustment. Alternator may take a few minutes to recharge batteries before voltage can rise. Alternator must also be capable of putting out more current than vehicle draws at a given RPM.
5. Press brake to insure idle speed returns to normal.
6. Installation complete.

Fig. 1

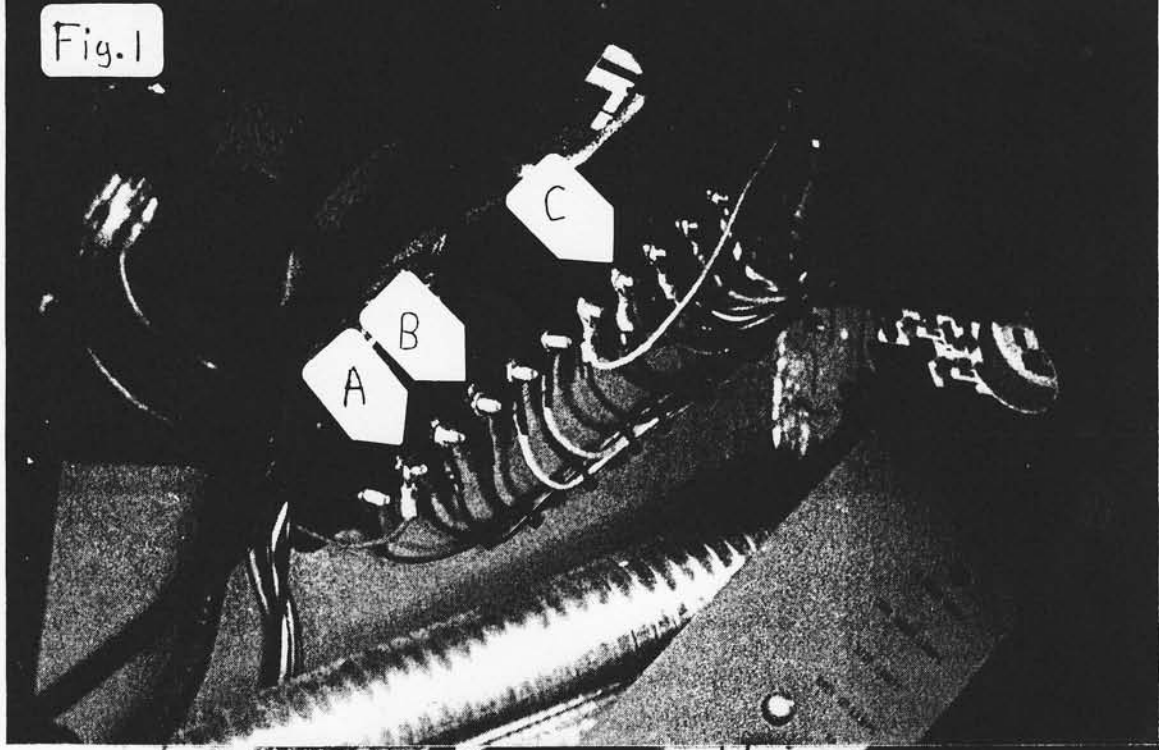


Fig. 2



Fig. 3

