

PI-1005

**PENNTEX IDLE CONTROLLER
FOR
CHEVY 454 GAS G & P CHASSIS**

PI-1005

INSTALLATION:

*****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 a source that provides +12v when the ignition switch is in "RUN" position (ex. Yellow wire to radio from fuse box). Certain interlocks or safety switches may need to be considered. For example, if an auxiliary battery cut-off switch is installed, the idler should be wired so that this switch can deactivate it.
- 4) Connect the orange wire from idler to an orange w/black stripe wire from the left side of the Neutral/Park switch. This wire should be grounded only when the gear selector is in Park or Neutral. The switch is mounted on top of the steering column, near the fire wall (fig. 4). If these terminals are not in use, then connect one to the idler and the other to ground. This switch may need to be adjusted if its position is disturbed during installation. *IF NO SWITCHES PRESENT, INSTALL A PI-0203 SWITCH AS PER SWITCH CONNECTION UPDATE.*
- 5) Connect the green wire from idler to a white wire on the brake light switch. This wire should be +12v only when the brake pedal is pressed. If the hazard circuit intermittently pulls this wire to +12v, two 6 amp. rectifiers may need to be installed as shown in fig.3-A. This wire might also be more accessible at the steering column connector as in fig. 3-B.
- 6) Connect the black wire from idler to chassis ground.
- 7) Drill 1/2" dia. hole through fire wall or floor and feed harness through to grommet. Tape and tie any loose wires or harness away from sharp edges and moving parts.
- 8) Mount C.B. & Relay close to a source for +12v (>30A), 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 C.B. to a +12v source that can supply >30A.
- 13) Check to insure that the solenoid's idle control nut and cable housing are fully retracted.
- 14) Mount solenoid close to relay and within cable's reach of throttle bracket but away from direct exposure to high heat sources or water spray.
- 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) Remove air cleaner.

- 19) Mount idler throttle bracket w/OEM bolt as shown in fig. 1-A.
- 20) Route solenoid's cable to throttle body and attach to idler bracket as shown in fig. 1-B. Secure cable away from heat sources, sharp edges or moving parts.
- 21) Attach idler throttle cable to cruise control pivot (fig.2A). Use the two (2) spacers (fig.2-B) to center the linkage adapter (fig.2-C). Retainer clip (fig.2-E) is supplied for units that don't have cruise control (fig.2-D).
- 22) Leave approx. 1/2" of slack in cable and tighten the screws on the linkage adapter (fig.2-C).
- 23) Operate throttle lever manually to insure obstruction free downward swivel of pivot adapter without hanging or jamming.
- 24) Reinstall air cleaner.
- 25) 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. Put the shifter in "park".
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 solenoid's 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.

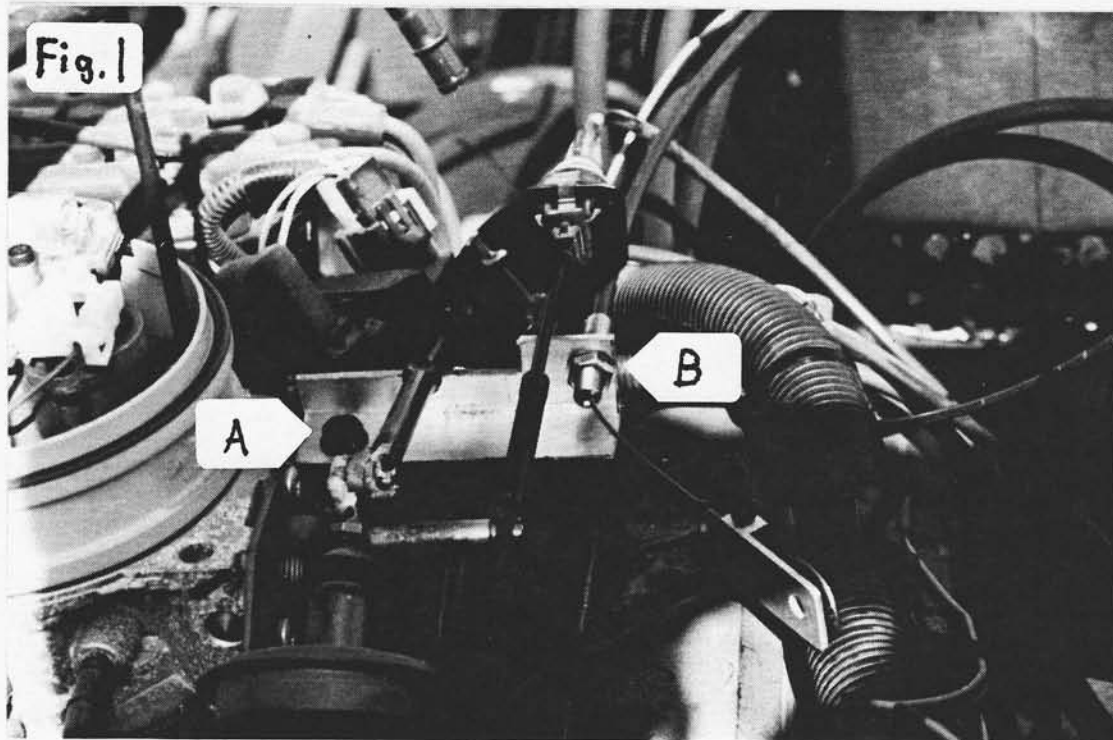


FIG. 2

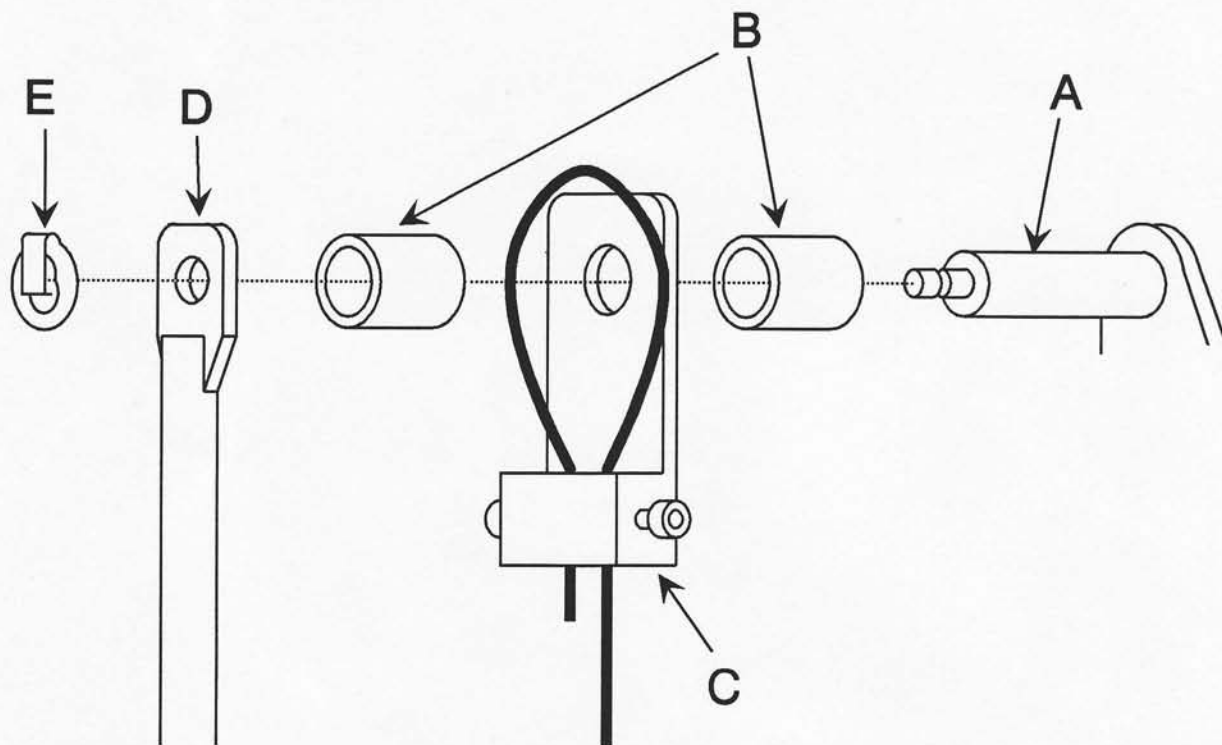


Fig. 3-A
green wire
CONNECTION
TO Brake

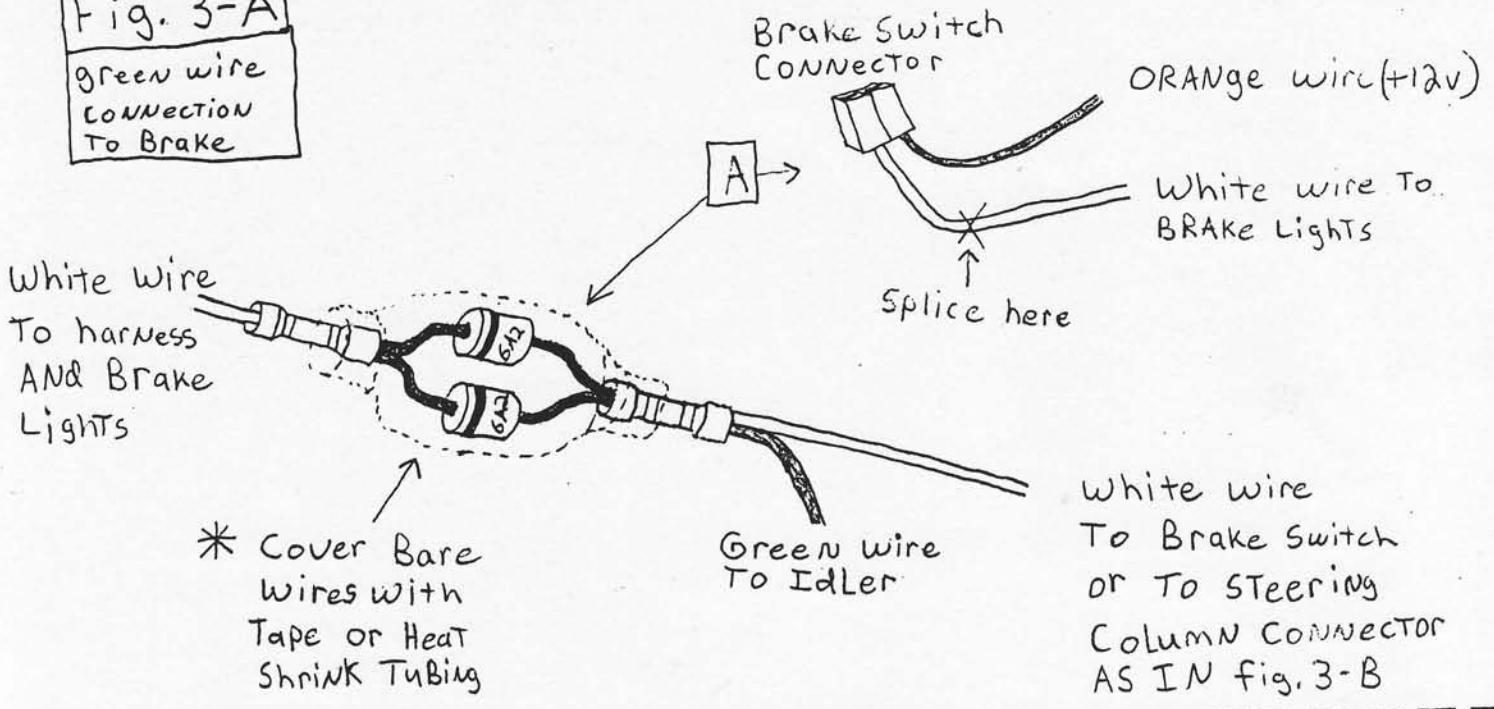


Fig. 3-B
green wire
CONNECTION
TO Brake

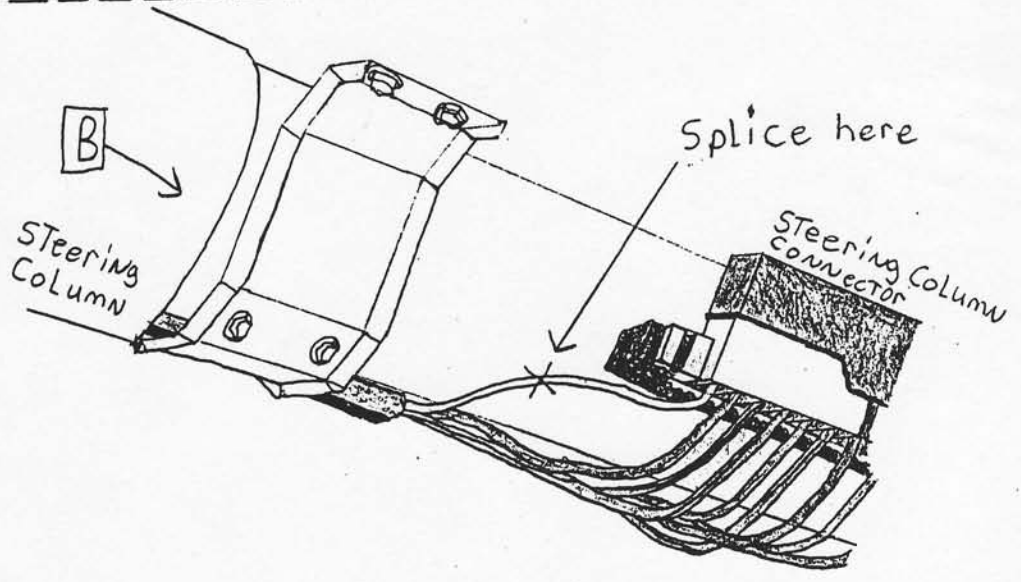
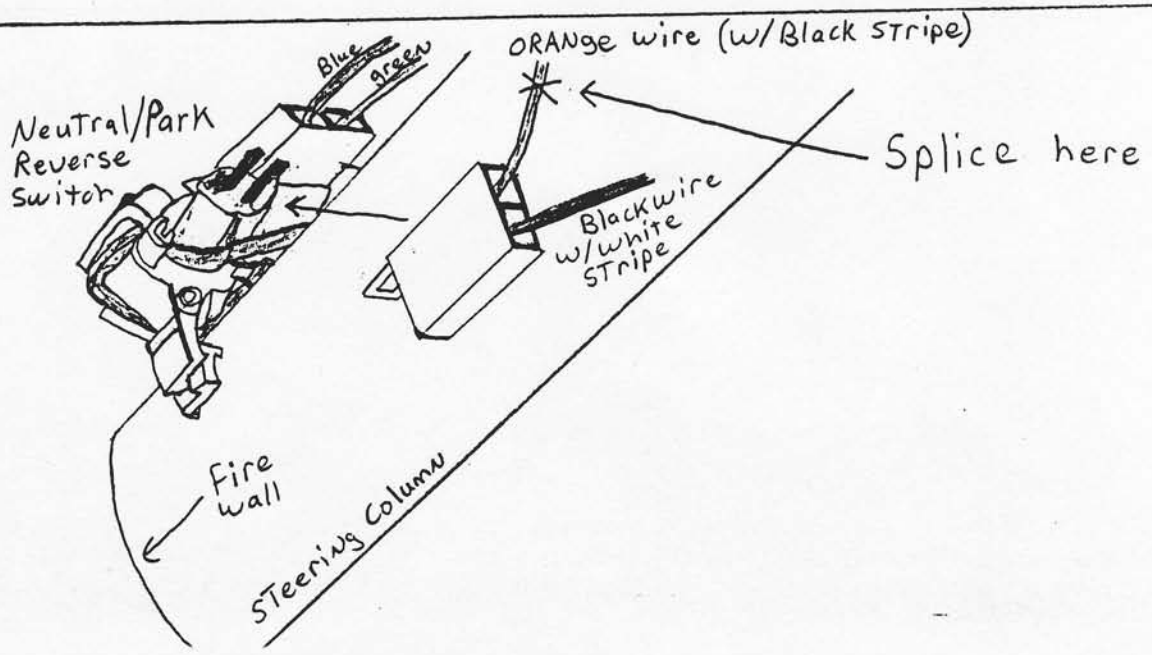
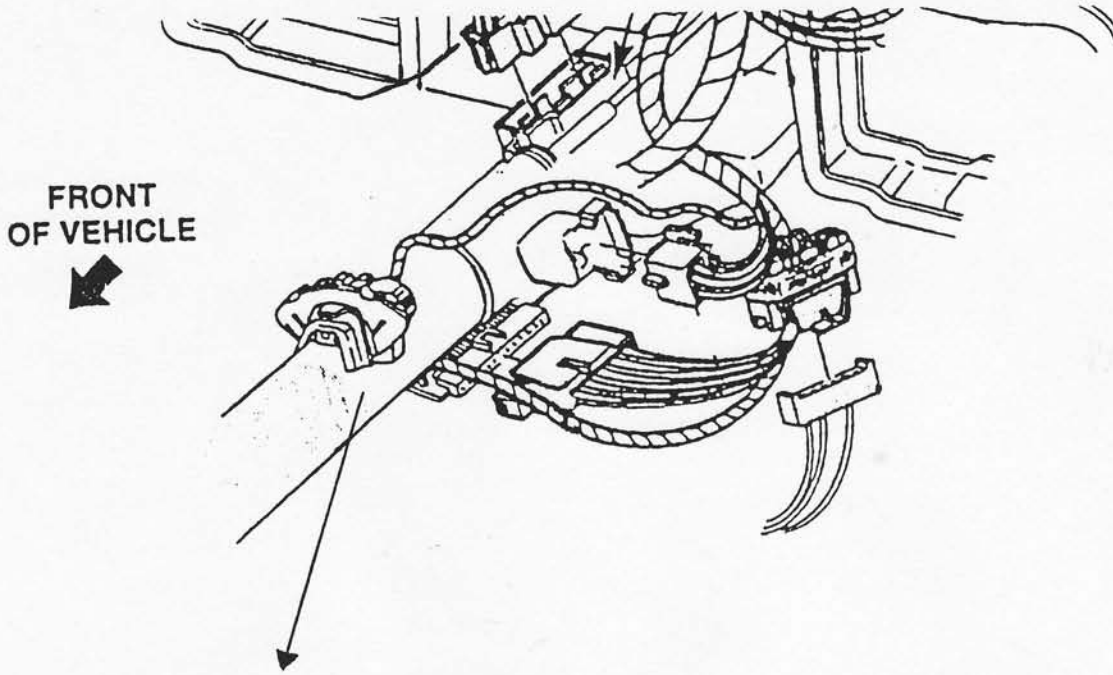


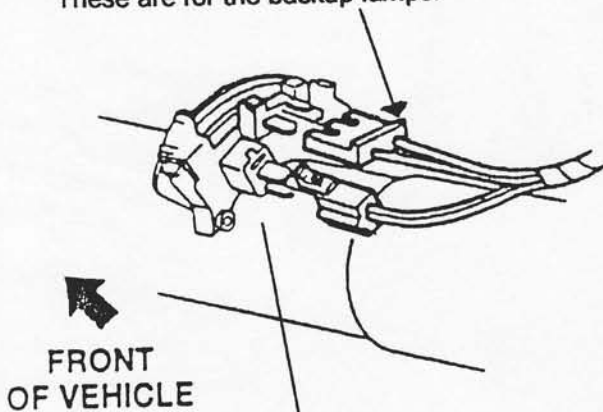
Fig. 4
ORANGE wire
CONNECTION
TO Neutral/
Park Switch



GM Park/Neutral & Reverse Switch Connection Update



DO NOT USE THE GREEN AND BLUE WIRES !!!
These are for the backup lamps.



Steering Column Wiring and Switches

The park/neutral portion of the switch shorts the terminals together when the gear selector is in park or neutral position. The usual colors for these wires are orange and black. Certain chassis do not use this portion of the switch and therefore do not have these wires or connector present. *** Some switches may not have terminals for the park/neutral part of the switch. If so replace switch with GM part # 22514861 or 15705308 or AC/DELCO part # 15679680 or similar. If wires are not present use two 1/4" female quick disconnect crimp connectors to ground the lower terminal (closest to steering column) and connect the upper terminal to the idler's orange wire. **The switch may need to be adjusted for proper operation. Always check for proper idler and backup lamp operation after installation is complete.**