CLASSIC
Diesel Designs
SAN ANTONIO, TEXAS

Thank you for purchasing a manual glow plug controller conversion kit from Classic Diesel Designs. If you have any questions about the installation of this product, email us at Sales@ClassicDieselDesigns.com. Or feel free to call us at 830-252-9767.

Before installing this kit, it is prudent to check for continuity between the supplied harnesses between each connector. Every harness is checked before shipment, but is possible for a connection to be damaged in shipping. If your harness is damaged, please contact us right away and we will send a replacement harness free of charge.

To begin installation, start by removing the stock glow plug controller and harness. Next, find a place to mount the white rodger's relay. We install ours next to the starter solenoid on the passenger fender. With the relay securely mounted, find the wire labeled GROUND. Attach the smaller end of the ground wire to a small terminal on the relay. Attach the other end of this wire to a good ground, we like to use one of the mounting bolts for the starter solenoid. Next take the wire labeled 12V FEED, attach the smaller end to one of the larger studs on the relay, it does not matter which stud is used. Attach the other end of this wire to a hot at all times 12v source. We like to use the hot side of the starter solenoid, it is important that the source is located close to the batteries to limit current drop for the glow plugs to heat quickly. Now take out the two large glow plug harnesses, each harness feeds one bank of glow plugs and is labeled for each side of the engine that harness is built for. Connect the bullet connectors to each of the glow plugs and route the harness under the injection lines. The harnesses

should join near the fuel filter, with the driver side bank passing in front of the injection pump, and then route from there to relay. Lastly, are the two wires for the pushbutton. The longer of the two wires is labeled PUSHBUTTON, this wire is ten feet long to reach from the remaining small terminal on the relay all the way to the pushbutton in the cab. Since styles of connectors vary with different manufactures, you must get connectors to suit your style pushbutton. Once you have the ten foot wire ran from the relay to the pushbutton, trim it to the length to avoid the harness getting caught or pinched. Crimp or solder your connector and attach the end to one side of the pushbutton. The last wire fuses the circuit with a fuse tap which replaces a fuse in the under dash fuse panel. Find a fuse that only has power when the key is on, and place the fuse tap in the place of the original fuse. Using mini fuses, place the same amp rated mini fuse as what was replaced in the lower fuse holder. Place a 15 amp mini fuse in the upper fuse holder. Run the end of this wire to the other end of the pushbutton, cut it to length and crimp or solder the proper connector on, and attach it to the pushbutton. When the key is turned on and the pushbutton depressed, the relay should click in the engine bay, and the voltage reading in the dash should drop. When the button is released the voltage should rise back up. To maximise the life of your glow plugs they should only be heated the minimal amount to the start the engine, overheating the glow plugs will shorten the life of the entire system. Typically 5-10 seconds is enough to start these engines in above freezing temperatures, and 15 seconds below freezing. Once the engine is warmed up to operating temp, the glow plugs do not need to be used to restart the engine, this leads to less cycling of the glow plug system and extends the life of the glow plugs and the entire starting circuit.