



PART NO. 93-4400

INSTALLATION
INSTRUCTIONS

FAST GLOW PLUG KIT REELMASTER 216D

Helping you put quality into play.™

1. Stop engine, set parking brake and remove key from ignition switch.
2. Disconnect negative (-) battery cable from battery.
3. Disconnect white wire from the #17 & #19 terminals on back of ignition switch. Cover terminals with tape to insulate and secure wire with tape. Make sure wire does not interfere with any hot or moving parts. Retain mounting nuts.
4. Open hood. Remove a hairpin cotter securing hood to hood hinge, slide hood to one side and remove hood.
5. Remove fasteners securing front grille to hinge support and remove front grille.
6. Remove fasteners securing right front panel and right rear panel to hydraulic reservoir support bracket, channel and control panel. Remove panels.
7. Remove fasteners securing right front bracket to hydraulic reservoir support bracket and remove bracket.
8. Remove right hand footrest and lever bracket (if so equipped) mounting fasteners and remove these components.
9. Remove fasteners mounting left panel and air cleaner assembly. Move to the side to gain access.
10. Remove fasteners securing seat mounting plate pivot brackets and remove seat and mounting plate.
11. Remove skirt panel mounting fasteners and lift of skirt.
12. Remove (2) carriage bolts and flange locknuts securing front of hydraulic reservoir support bracket to frame.
13. Remove capscrew, flatwasher and grommet securing rear reservoir bracket to bottom of hydraulic reservoir. Move reservoir out of the way.
14. Remove plug from top of engine thermostat housing. Discard plug.
15. Apply #2 Permatex sealant to threads of water thermo sender and install in top of engine thermostat housing.
16. Remove bolt securing fuel line to injection pump to gain access to #1 glow plug..
17. Disconnect wire harness from glow plug buss bar.
18. Remove nuts mounting buss bar to glow plugs.
19. Remove glow plugs from engine.

20. Install new fast glow plugs to engine.

21. Mount buss bar to glow plugs with nuts previously removed. Do not re-connect harness to buss bar at this time.

22. Re-install fuel line to injection pump with bolt previously removed.

23. Using dimensions shown in figure 1, locate, mark and drill (2) 9/32" dia. holes in right footrest.

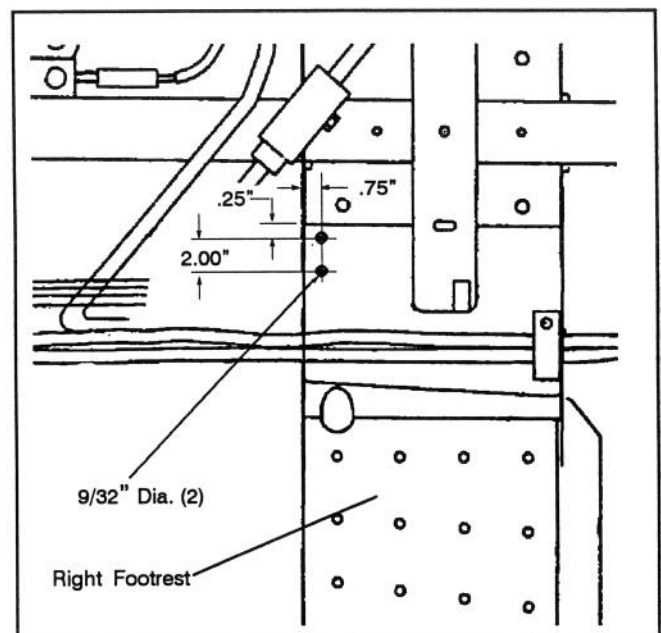


Figure 1

24. Mount relay to footrest with (2) 1/4-20 x 3/4" lg. capscrews and locknuts (Fig. 2).

25. Using existing hole in left footrest, mount controller to footrest with a 1/4-20 x 3/4" lg. capscrew and locknut (Fig. 2).

26. Make wire harness connections as follows:

Note: Coat all terminals with skin over grease, Toro Part No. 505-36.

A. Plug harness connector into controller mounted on left footrest.

B. Locate where negative (-) battery cable is secured to left rear corner of engine block. Remove capscrew from engine and secure black (ring terminal) wire from harness to engine with existing wires connected to engine.

C. Mount white (ring terminal) wire from harness and external tooth lockwasher (include in kit) to glow plug buss bar with other connections previously disconnected. External tooth

lockwasher to be positioned between wire harness ring terminal and buss bar.

D. Remove nut from "I" terminal on back of temperature gauge. Mount white/red (ring terminal) wire from harness to "I" terminal with other connections previously disconnected.

E. Plug yellow/black (spade terminal) wire from harness onto water thermo sender.

F. Mount green (ring terminal) wire from harness to #17 terminal on back of ignition switch with nut previously removed.

G. Remove nut from #30 terminal on back of ignition switch. Mount red/blue (ring terminal) wire from harness and other connections to terminal with nut previously removed.

H. Plug remaining connectors onto relay mounted on right footrest.

I. Secure wire harness to frame with cable ties. Make sure harness does not interfere with any hot or moving parts.

27. Connect negative (-) battery cable to battery.

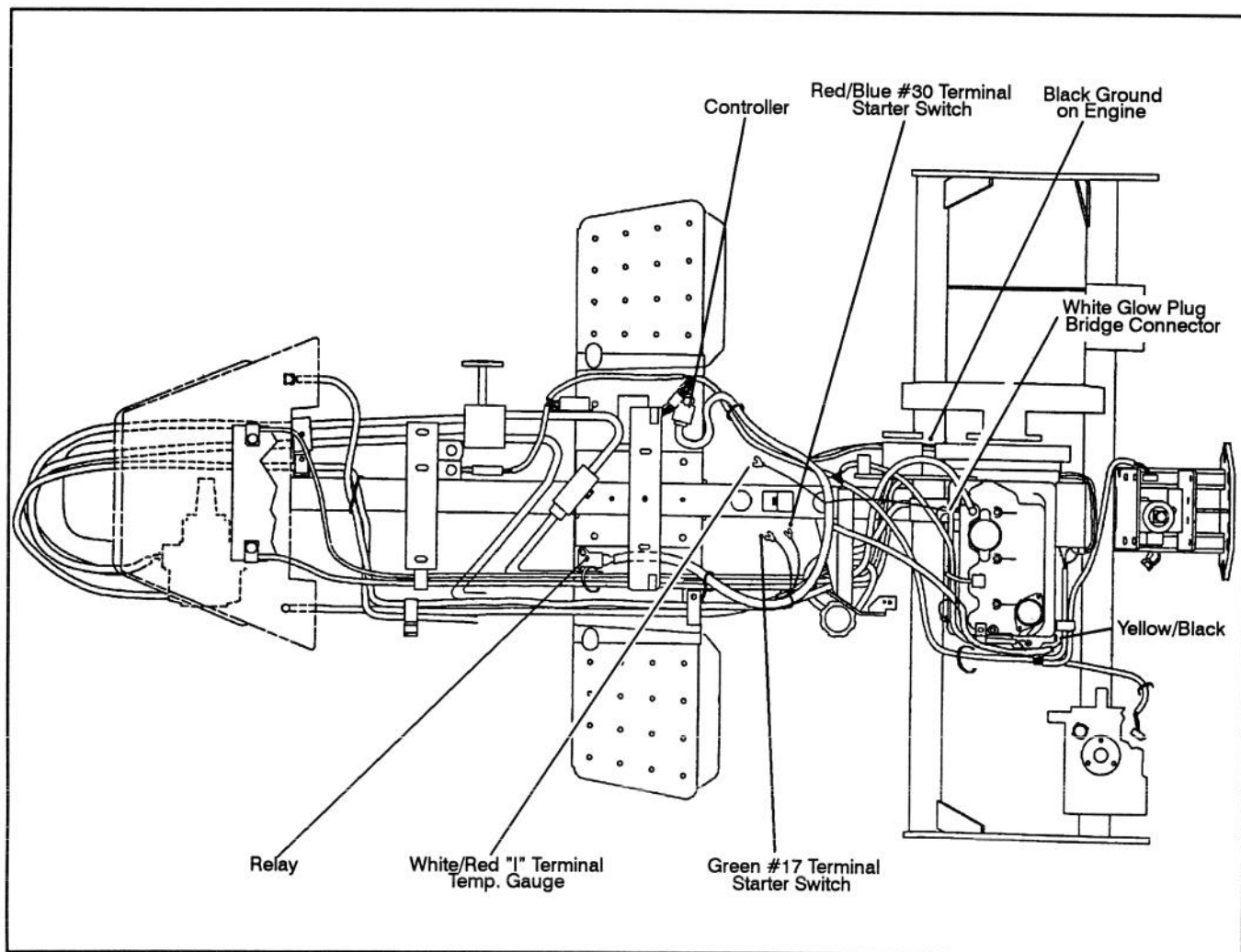


Figure 2

28. Check glow plug operation as follows:

A. Turn starter switch to "GLOW" position. The oil, battery and glow lights should energize. The glow light should go out in approximately 4–6 seconds @ 70°F. Slightly longer time is required at lower ambient temperatures.

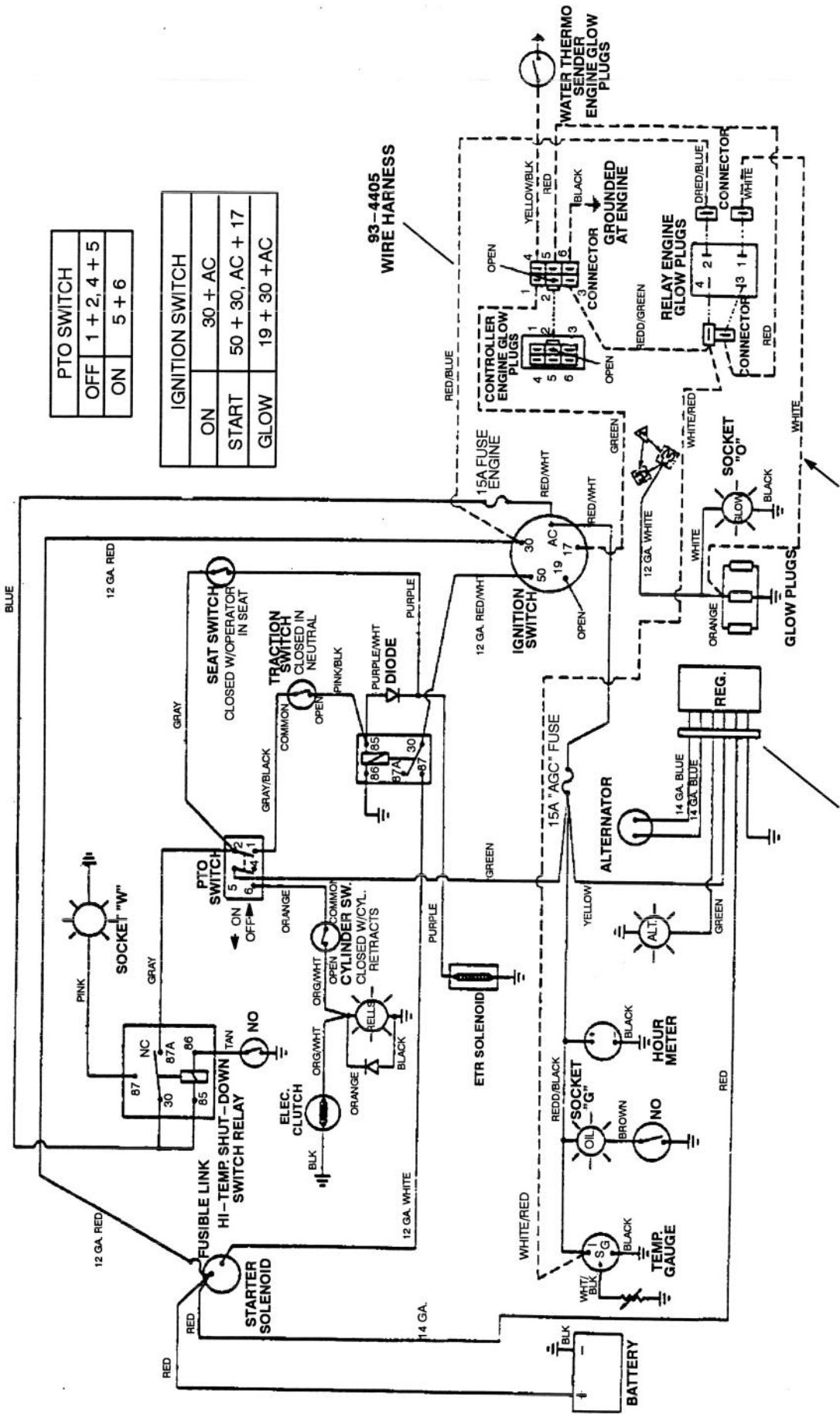
B. Turn starter switch to "ON" position. The same lights should energize as when turned to "GLOW" position.

C Turn starter switch to "START" position. The oil, battery and glow lights should energize while engine is cranking. Oil light should go out when oil pressure is attained. Battery and glow lights should go out when engine starts.

D. If lights do not operate correctly, check all connections to be sure they are tight, properly installed and light bulbs are not burnt out.

29. Re-install components removed in previous steps.

ELECTRICAL SCHEMATIC – 1993 & PRIOR YEARS



PTO SWITCH	
OFF	1 + 2, 4 + 5
ON	5 + 6

IGNITION SWITCH	
ON	30 + AC
START	50 + 30, AC + 17
GLOW	19 + 30 + AC

Dotted lines indicate new wire harness and terminal connections

CONTROLLER