

Service Kit 753-0870

CODE: R-435

DATE: October 13, 1999

SUBJECT: Wire Harness Replacement

MODELS AFFECTED: All tractor models manufactured with an electric PTO with either harness 629-0939 or 629-0928.

Service Kit 753-0870 applies to all tractor models manufactured with an electric PTO with either harness 629-0939 or 629-0928. This kit should be used **only** if it is necessary to replace the tractor's wire harness. Contents of kit are listed below.

PART NO.	QTY.	DESCRIPTION
725-0157	4	Cable Tie
629-0939	1	Wire Harness Assembly
629-0309	1	Headlight Harness Assembly
710-0260	2	Carriage Bolt 5/16 - 1/8 x .62
712-3004A	2	Hex Flange Lock Nut 5/16 -18

Removal Of Original Harness:

NOTE: Save all hardware and safety switches for use when reassembling.

1. Remove cutting deck.
2. Raise seat and disconnect cables from battery (negative - black cable first) Remove battery, battery box and rubber battery strap.
3. Disconnect both red cables, green wire and orange wire from solenoid. Solenoid is mounted to the frame behind the battery box opening. It is accessible through the battery box opening. Be sure not to lose the star washer located between the green wire and the frame. Unplug connector from the seat safety switch. See Figure 1.

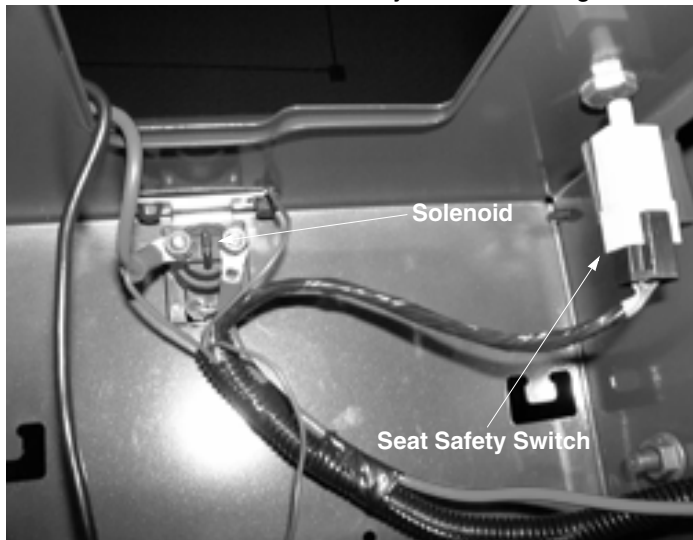


Figure 1

4. Disconnect black negative battery and green ground wire from frame. Be sure not to lose star washer between fitting and frame.

5. Cut cable tie located on left side of frame above axle and harness clip if so equipped at rear of frame.
6. Disconnect the yellow wire from the reverse switch terminal located on the left, rear portion of the transmission torque bracket on 600-series units. Feed the wire back up to the top of the frame. See Figure 2.

NOTE: Orientation and appearance of shift rod and reverse switch may vary on 600-series units.

NOTE: Reverse switch is located on top of frame near base of shift lever on 800-series units (not shown).



Figure 2

7. Remove and discard the hex flange nuts and bolts attaching front of the fender assembly to the mounting brackets. Also remove and discard the spacers, if present, from between the fender assembly and brackets. See Figure 3.
8. Cut plastic harness clips where shown and push up through holes in frame. See Figure 3.

Form No. 770-10327
(10/99)

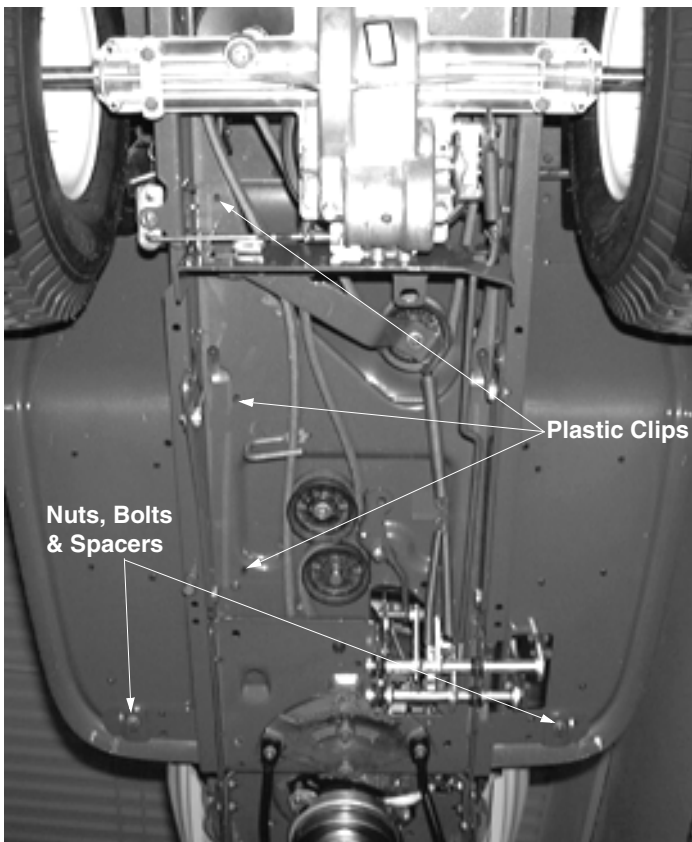


Figure 3

9. Disconnect wires from headlight sockets.
10. Remove hood, grille and side panels. These can usually be removed as a complete assembly.
11. If fuel is present in gas tank, clamp fuel hose near the fuel pump or carburetor. Note routing of fuel hose for reassembly. Disconnect hose from fitting on pump or carburetor. Remove bolts attaching tank to dash support tube. Remove tank and fuel line. See Figure 4.

NOTE: Gas cap is vented. Place tank so that fuel will not leak.

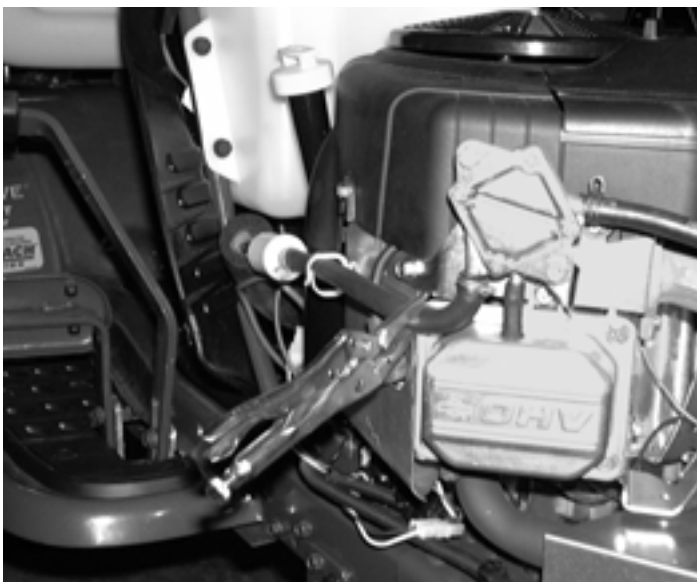


Figure 4

12. Cut harness at base of steering shaft as shown. See Figure 5.

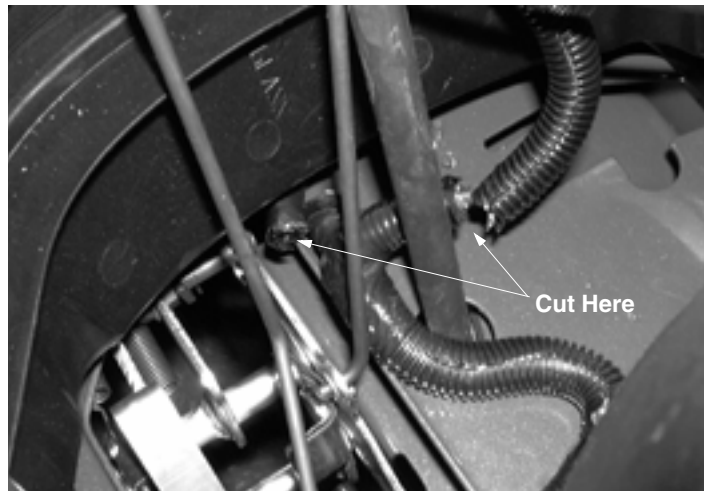


Figure 5

13. Working at rear of tractor through battery box, route harness over lift shaft and pull firmly to remove rear section of harness. Discard this section of the harness.
14. Working on engine side of dash, unplug connectors from ignition switch, systems indicator, and PTO switch. Remove fuse holder from dash support tube. It may be necessary to break clip on holder. Remove and discard this section of harness.
15. Cut cable tie securing harness near base of engine. Carefully untangle wires. Note all connections for reassembly.
16. Disconnect all wires and cables connecting the harness to the engine wiring. Leave any pigtails or adapters attached to the engine wires as they will be reused.
17. Disconnect harness from electric clutch wires.
18. Pull section of harness going to headlights from the plastic clip located above the pivot bar. Pull the section of harness near the steering shaft from the two clips behind the engine. Pull the section going to the electric clutch from the clip at the side of the engine.
19. Pry the brake safety switch off the tab in the frame as shown. See Figure 6.

NOTE: Parking brake must be disengaged.

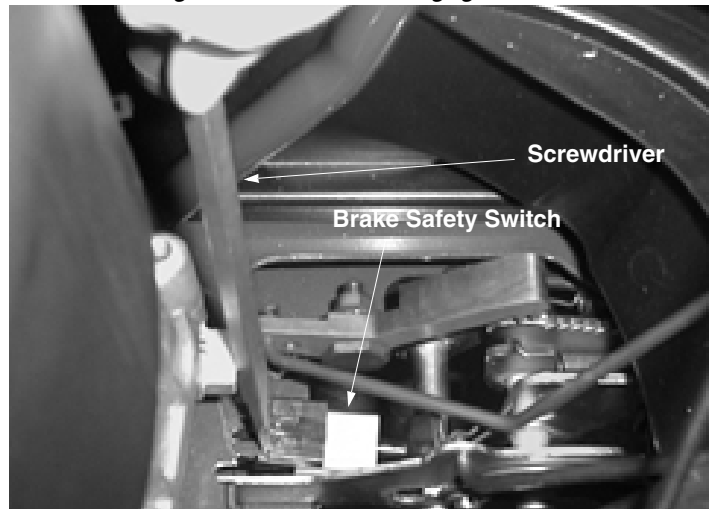


Figure 6

20. Working beneath the frame, rotate the brake safety switch as shown. Pull forward and to the right on the section of the harness going to the switch in order to remove the switch. Unplug the switch from the connector and save the switch. See Figure 7.



Figure 7

21. Push the connector from the brake safety switch up through the hole in the frame and remove the remaining section of the harness. Keep this section for comparison with the new harness.
22. Remove the four harness clips from the frame.
23. Lay out the section of the harness last removed along side the new harness. Compare the wires connecting to the engine. Cut wires from the new harness so that it matches the original.

NOTE: The new harness has a different connector going to the headlights.

Installation of New Harness:

NOTE: White marks on harness in pictures indicate locations of plastic mounting clips.

1. On the left side of the tractor, thread the front section of the new harness beneath the throttle and choke cable(s). Place a cable tie loosely around the harness and base of dash support tube on the left or push plastic clip into hole in frame if present. See Figure 8.



Figure 8

2. Pull section of harness with electric clutch, brake safety switch, engine, and headlight connections across behind the engine and push plastic clips into holes in frame. See Figure 9.

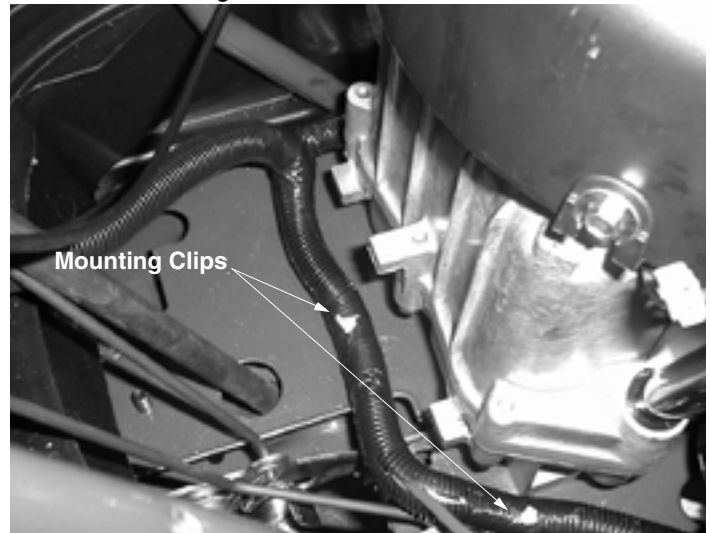


Figure 9

3. Route fuse holder and ignition switch plug behind steering shaft and parking brake rod, but in front of cruise control rod if so equipped. Attach ignition switch plug to switch and clip fuse holder to hole in right side of dash support tube from the outside.
4. Attach PTO switch plug to PTO switch. Numbers 9, 8, & 7 on plug face forward or up.
5. Attach systems indicator plug to monitor. Retention clip faces the left side of the tractor. See Figure 10.

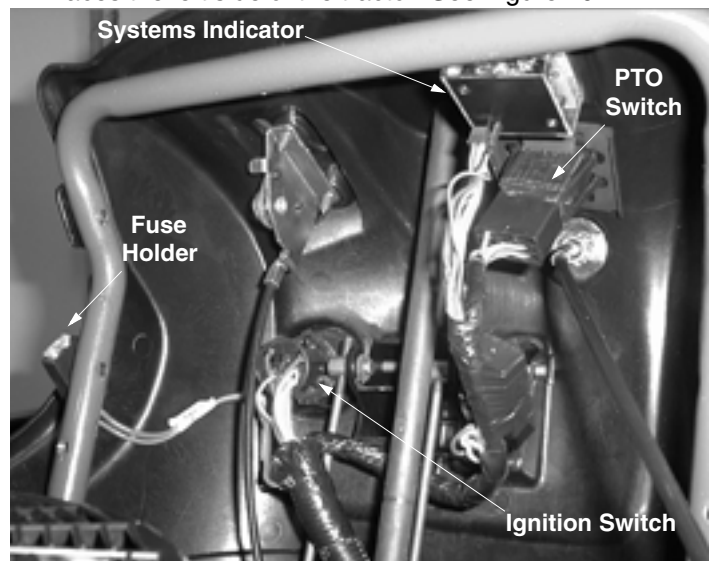


Figure 10

6. Along right side of engine, feed brake safety switch plug down through hole in frame, keeping brake switch wires to the rear of the electric clutch wires. Plug connector into brake safety switch. Feed switch back between steering support plate and frame. Work switch towards activator on brake control assembly. Align clip on brake safety switch with tab on frame and push switch forward to secure it.

7. Attach all wires in harness to engine. Attach connector for electric clutch to wires from clutch and push plastic clip into hole in frame just in front of large hole for clutch and brake switch wires
8. Pull headlight lead forward and push plastic clip into hole in frame. Take up all excess slack in wires and secure with cable tie along right side of engine as shown. Be sure wires do not interfere with operation of oil drain. See Figure 11.

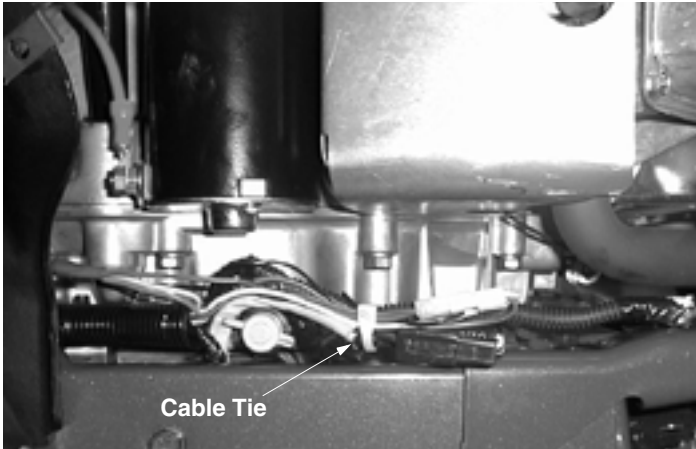


Figure 11

9. Beneath left side of fender, route the rear of the harness between the lift cable and the frame leaving the yellow wire hanging free. Attach the harness loosely to the frame using the two remaining cable ties. Route the yellow wire to the reverse safety switch and attach it to the switch. See Figure 12 .

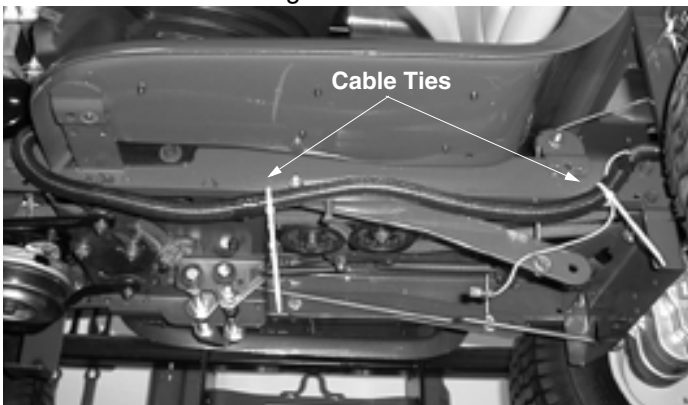


Figure 12

10. Working through the battery box opening, pull all loose connectors on the rear section of the harness over the lift shaft. Push plastic clip in harness into hole in frame just in front of lift shaft. See Figure 13.
11. Attach wires and cables to solenoid as shown. Be sure to put star washer between fitting on green wire and frame. Plug seat safety switch connector into seat safety switch. Clip plastic fuse holder into hole in rear of frame just left of center. See Figure 14.
12. Attach black, negative battery cable with the green, ground wire to frame. Be sure to place star washer between frame and fitting. See Figure 13.

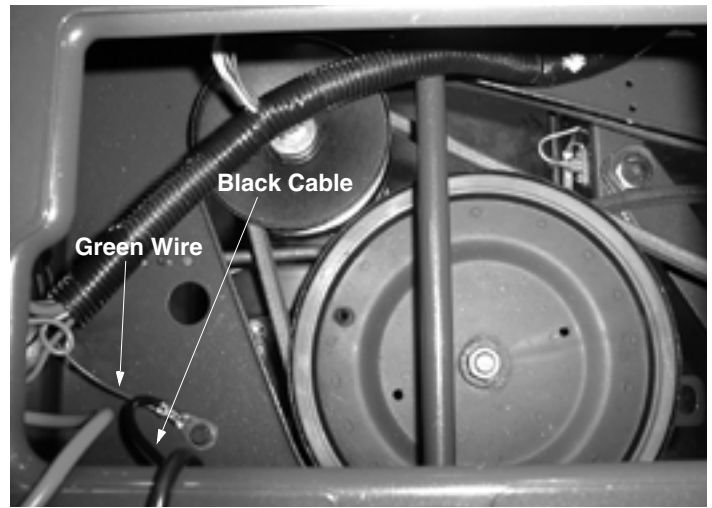


Figure 13

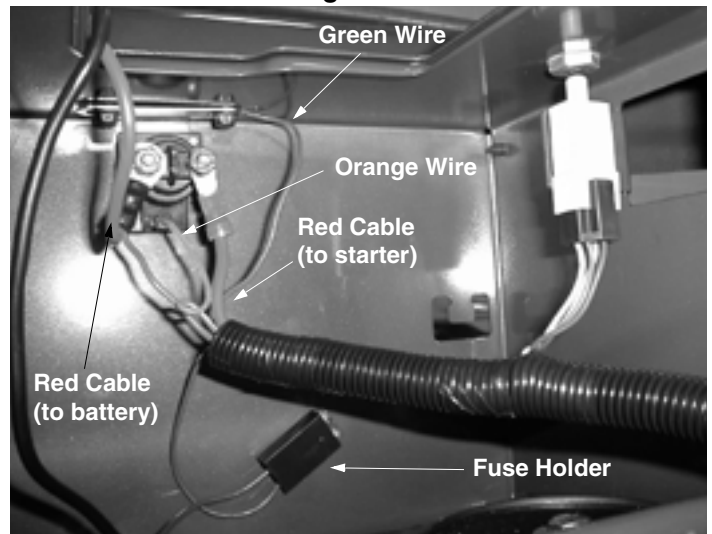


Figure 14

13. Keep battery cables separated and pulled up through notch at right rear of battery box opening. Reinstall rubber battery strap. Lower battery tray into opening. Place battery into tray with terminals to the left. Secure with rubber strap.
14. Attach the positive cable to the positive terminal of the battery and cover terminal with rubber boot on cable. Attach negative cable to negative terminal on battery.
15. Reinstall gas tank and fuel line. Be sure to route fuel line as it was originally. Remove clamp from fuel line.
16. Beneath fender assembly, reattach fender to mounting brackets using carriage bolts and hex flange lock nuts provided. Pull excess slack in harness beneath fender forward and tighten cable ties securing harness to frame. Pull slack in harness at front of fender assembly onto top of frame beneath gas tank. Tighten cable tie at base of dash support tube to secure harness. Trim excess from all cable ties.
17. Place headlight lead of main harness such that it will not interfere with the installation of the hood, grille and side panels. Reinstall these items.
18. Plug wires onto headlight sockets such that tail of headlight harness is to the right. Plug headlight harness into headlight lead of main harness.