

15. ELECTRICAL SYSTEM COMPONENTS

This section is intended to help technicians identify the location and function of specific components on the RZT electrical system.

15.1. The SEAT SAFETY SWITCH is located under the seat assembly. See Figure 15.1.

-The contacts on the switch are normally closed. This is indicated with the initials N.C. on the side of the spades.

-When the seat is unoccupied this will energize relay # 1 & 2.

NOTE: The seat safety switch has nothing to do with the starting circuit.

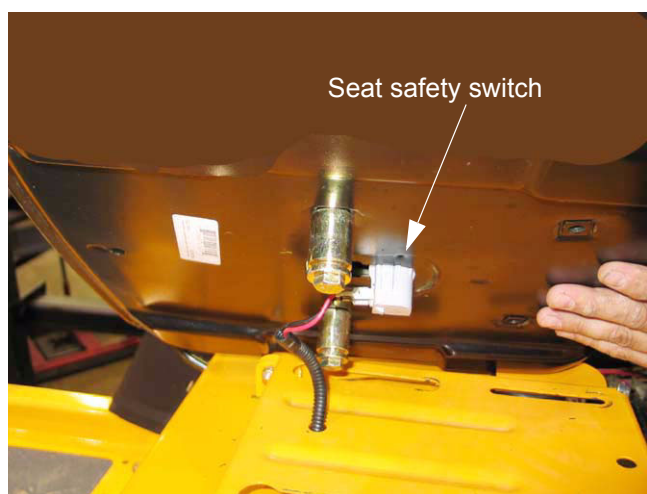


Figure 15.1

15.2. The PARKING BRAKE SWITCH is located under the seat box frame. See Figure 15.2.

-Both sets of contacts are normally open (N.O.).

-When the switch is activated the red wire supplies power to the seat switch. The red/white wire is for an indicator light on the hour meter. An orange wire goes to the starter solenoid. The orange/white wire goes to the PTO switch.

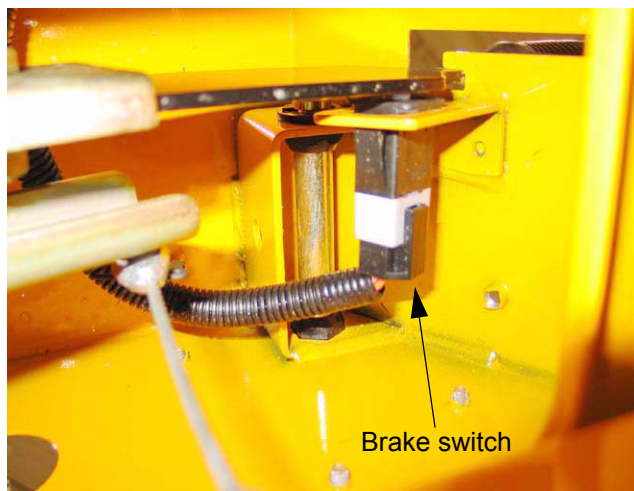


Figure 15.2

NOTE: The brake switch is part of the start circuit.

15.3. The NEUTRAL SWITCHES are in the console on each side of the unit. They are normally open/ normally closed switches. See Figure 15.3.

-The two inner terminals are N.C. They have a yellow/ white wire which supply a ground to center set of spades on the PTO switch and spade 87 on the brake relay.

-The two outer terminals are N.O. The left switch has a yellow/white wire which goes to the key switch and a orange that goes to the right neutral switch. The right neutral switch has the orange wire and a orange/black wire which leads to the PTO switch.

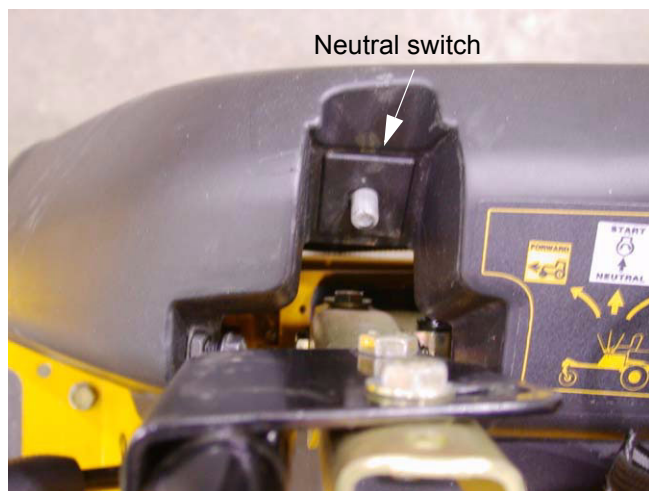


Figure 15.3

NOTE: These switches are part of the starting circuit.

15.4. The REVERSE SWITCHES are located just under the lapbars in the console. See Figure 15.4.

-There are two of these switches.

-These are normally closed switches (N.C.).

-The switches need to be set-up in a way that when the lapbar(s) are pulled to the rear the switch opens the circuit and eliminates power to the PTO from that switch.

-One lapbar can be pulled back at a time but, if both are pulled back that will cut power to the PTO. Returning one or both lapbars to neutral will reengage the PTO. This is done by wiring the switches in parallel

-If the reverse safety switch adjustment is not correct, loosen the reverse safety switch bracket using a 3/8" wrench. Pivot the bracket and switch to a position that results in correct operation, then tighten the bracket.

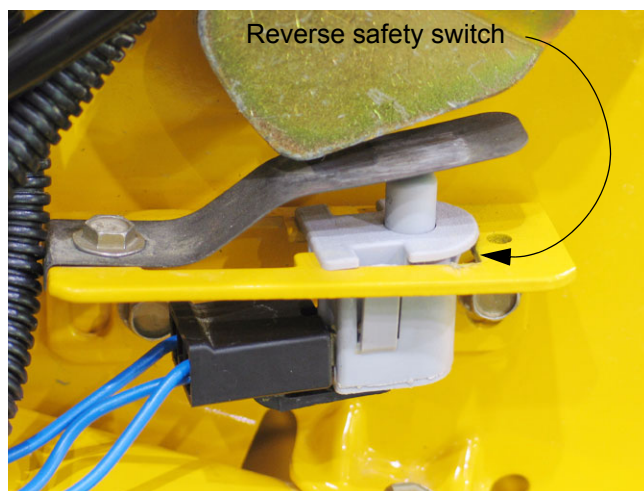


Figure 15.4

NOTE: It is not necessary to remove either control console to reach the reverse safety switches, but it may be necessary to temporarily disconnect the blue wires in order to reach the mounting screws for the brackets.

15.5. The PTO switch is located on the right console behind the key switch. This switch is part of the start circuit, PTO run circuit, and reverse safety circuit.

See Figure 15.5.

- The first set of terminals are in the start circuit. The orange/white wire connects to the brake switch and the orange/black wire goes to the neutral switches. The PTO switch needs to be in the off position to start the unit.

- The second set of terminals are part of the reverse safety circuit. They consists of yellow/black wire connecting to the terminal "30" of the PTO relay and the yellow/white wire which connects to terminal "87" on the brake relay and neutral switches.

- The third and final set of terminals, PTO run circuit, consists of blue wire from the reverse safety switches and a red wire from the run line.

NOTE: If you are checking for power at the PTO switch, you should have 12 volts at the red wire and no voltage at the blue wire with the PTO switch turned off. With the PTO switch on you will have 12 volts at both the blue and red wires. Be sure all other condition are being meet for the PTO to run properly.

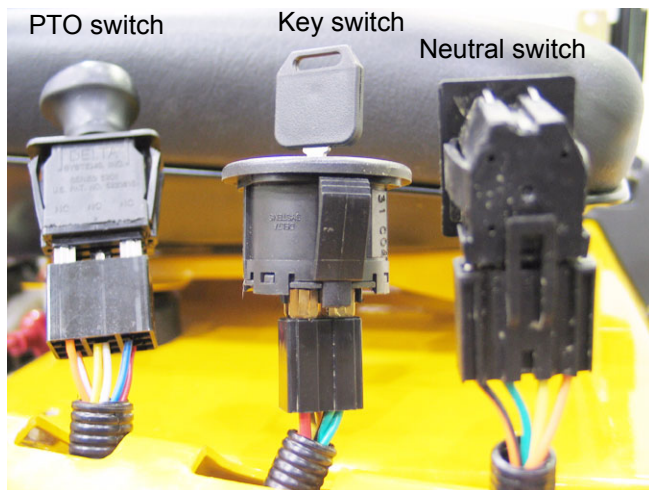


Figure 15.5

15.6. The KEY SWITCH is located on right console in front of the PTO switch.

- There was a midyear change to the key switch. Units with serial number before 1F014G20062 should have key switch 725-04019 (Delta switch number 6900-31P) and Harness 725-04170. When the old key switch is turned to the start position it doesn't energize the fuel shut off solenoid. This will not allow fuel to flow to the carburetor while the engine is cranking. To correct this, there is a new key switch (725-04228) and a harness adapter (725-04229). This is available in kit 759-04058 (service advisory CC-451)

- A new wiring harness 759-04170A should be on all models with serial numbers above 1F224G20001. These models will NOT need the harness adapter (759-04058) and will already have the proper key switch.

- To check for the proper key switch perform the following test.

NOTE: A multimeter or continuity tester will be need for this section.

Turn key to OFF position and check for continuity you should have continuity between G and M only.

Turn key to the RUN you should have continuity between L and B.

Turn and hold key in the Start position you should have continuity between L, B, and S.

- If this is the case then you have the most current switch. The old key switch is usually identical to the new switch. The difference being that the old switch when turned to START would have continuity between B and S only.

-The BRAKE RELAY should have a consistent ground (terminal 86) and will receive power (terminal 85) when the brake switch is activated.

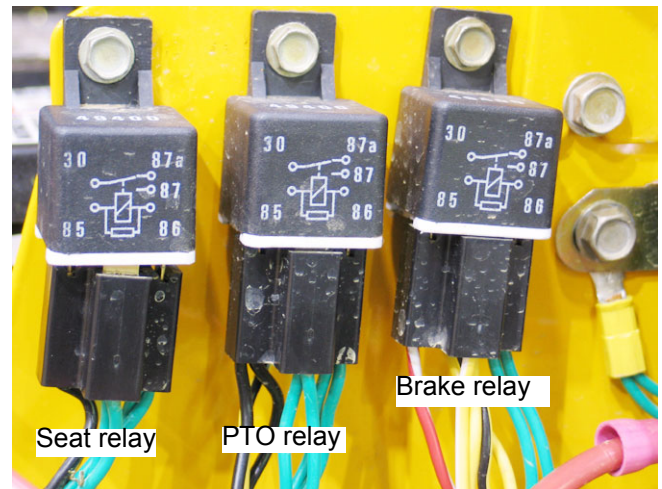


Figure 15.7

15.7. There are three RELAYS in the electrical system of the RZT. They are located under the right side console toward the rear. See Figure 15.7.

-The relays are assessable from under the rear of the console

-To replace a relay, the console does not need to be removed.

-When testing by feel a click should be felt when activated.

-Starting from the left they should be in the order of SEAT, PTO, and, BRAKE

-The SEAT RELAY should have a consistent ground (terminal 86) and will receive power (terminal 85) when the seat switch is activated.

-The PTO RELAY should have a consistent ground (terminal 86) and will also receive power (terminal 85) when the seat switch is activated.

15.8. The STARTER SOLENOID is located under the right console just to the right of the relays. See Figure 15.8.

- Be certain that there is a good path to ground by making sure there is a star washer under the mounting tab on the starter solenoid.

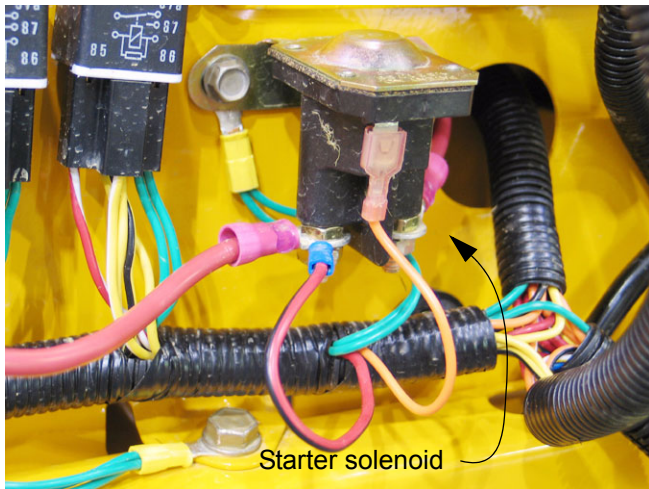
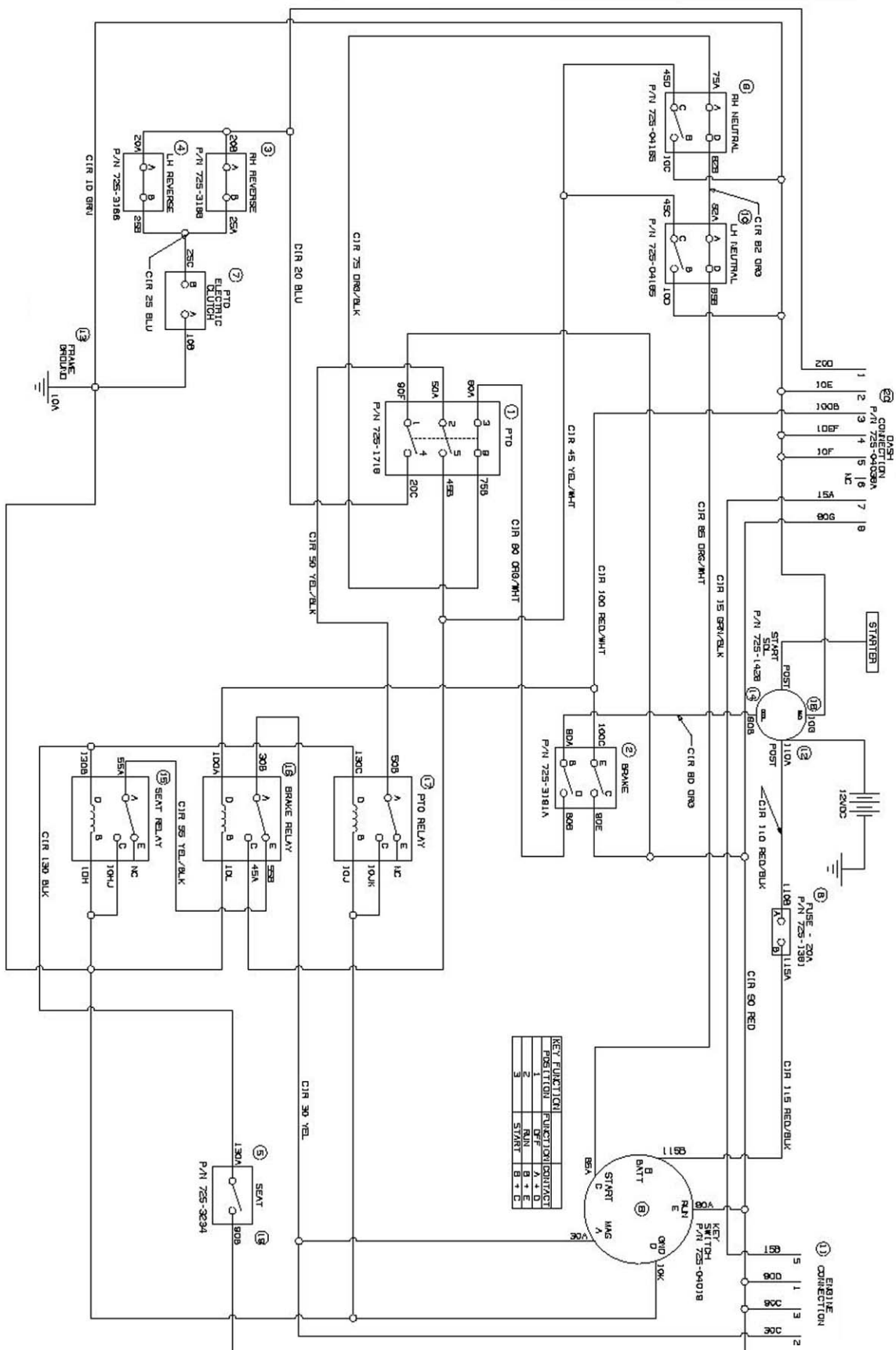


Figure 15.8



RELAY FUNCTION	FUNCTION CONTACT
1	START
2	STOP
3	START