

Figure 3-103

SEAT SWITCH CIRCUIT TO EIC BOARD

Battery voltage

The power originates at the battery and proceeds through the (R) battery cable to the starter solenoid.

From there power continues through the (R) wire to the battery side of the start relay.

The power continues through the (R) wire to the preheat circuit breaker, then through the (R) wire to the engine fuse panel (standard fuse block) battery side of the key main 15-amp fuse with a terminal bus to the battery side of the electronics 5A fuse.

The power continues through the (LTGN/R) wire to the seat switch. When one seat switch (only 1 switch needs to be closed as switches are in parallel wiring) is pressed closed, the power then continues through the (T) wire to the Service/Run switch. When the service/run switch is in the "SERVICE" position, the power stops.

With the Service/Run switch in the "RUN" position, the power continues through the (T/W) wire to the EIC board terminal 4 of connector P2.

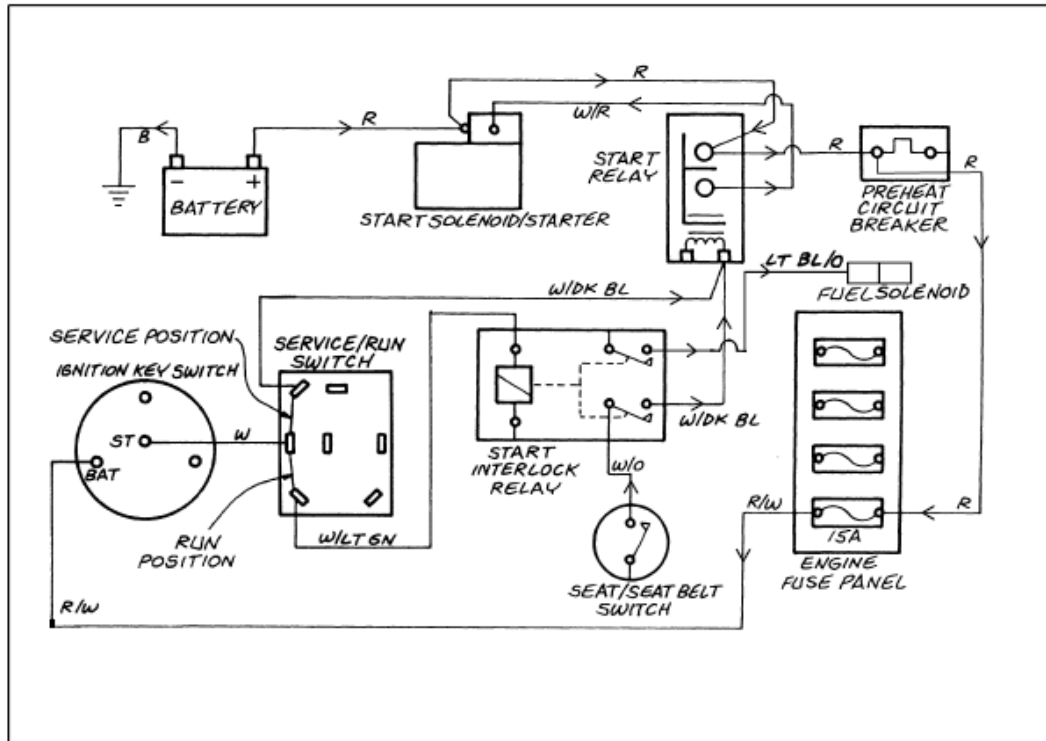


Figure 3-115

Start Relay Circuit

The power originates at the battery and flows through the (R) positive battery cable to the starter solenoid. From here the power flows through the (R) wire to the battery side of the start relay.

The power then flows through the (R) wire to the preheat circuit breaker and to the engine fuse panel to the 15A key main fuse.

The power then flows through the (R/W) wire to the battery terminal on the ignition key switch.

When the service/run switch is in the "RUN" position, the operator is in the seat with the seat belt buckled, and the start interlock relay is energized by the W/LTGN wire from the service/run switch, the start relay receives energizing power from the seat/seat belt circuit via the W/O wire, then the (W/DKBL) wire from the start interlock relay.

When the service/run switch is in the "SERVICE" position, the start relay receives energizing power through the (W/DKBL) wire from the service/run switch.

When the start relay is activated, it connects the battery side of the relay to the start side and sends power to the starter solenoid through the (W/R) wire, activating the starter motor.

IGNITION (Key) SWITCH WIRING

Ref	Color	Destination	Battery Voltage
1	O/LTBL	To Four-Way Flashing lights 10A Fuse (cab panel)- To Beacon Light 7.5A Fuse (cab panel)	Key "ON" position
2	LTGN/B	To EIC Board Pin #11 (small connector)	Key "ON" position
3	LTGN/B	To Accessory Relay (engine panel)	Key "ON" position
4	W	To Service/Run Switch	Key "START" position
5	W	To EIC Board Pin #10 (large connector)	Key "START" position
6	R/W	From 15A Fuse (engine panel)	All times
7	GY/B	Power to dome light (not available)	All times
8	O/PU-2	To Electronics 5A Fuse (cab panel)	Key "ON" position

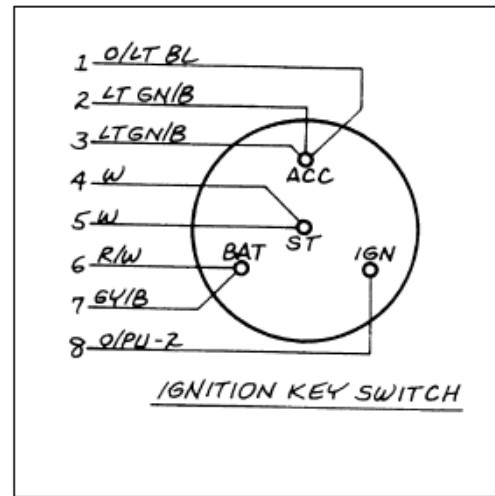


Figure 3-128

IGNITION (Key) SWITCH REMOVAL

1. Disconnect the negative (-) battery cable.
2. Remove the retaining hardware, 1, and remove the switch panel, 2, from the overhead dash area.
3. Remove the wires from the switch terminals.

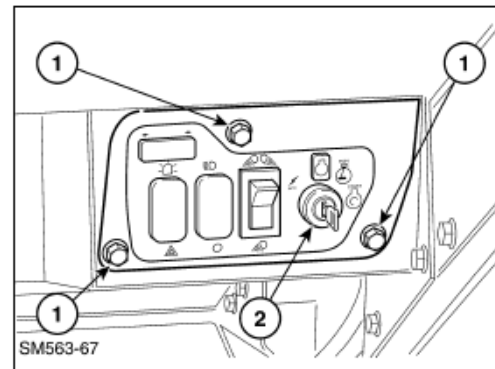


Figure 3-129

4. Remove the switch retaining nut, 1, from the switch and remove the switch from the panel.

IGNITION (Key) SWITCH INSTALLATION

1. Attach the switch to the panel and secure with nut, 1, previously removed.
2. Reconnect the wires to the terminals as shown above.
3. Reinstall the switch panel to the overhead dash.
4. Reinstall the negative (-) battery cable.

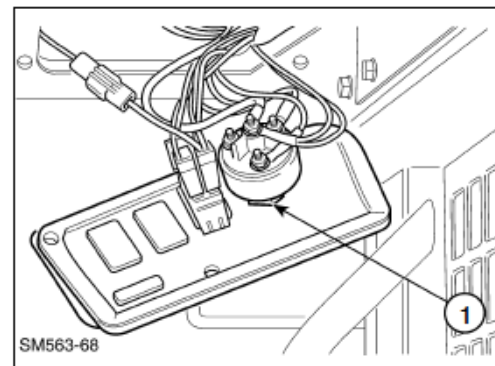


Figure 3-130

SECTION 3 - ELECTRICAL SYSTEM

SERVICE/RUN SWITCH WIRING

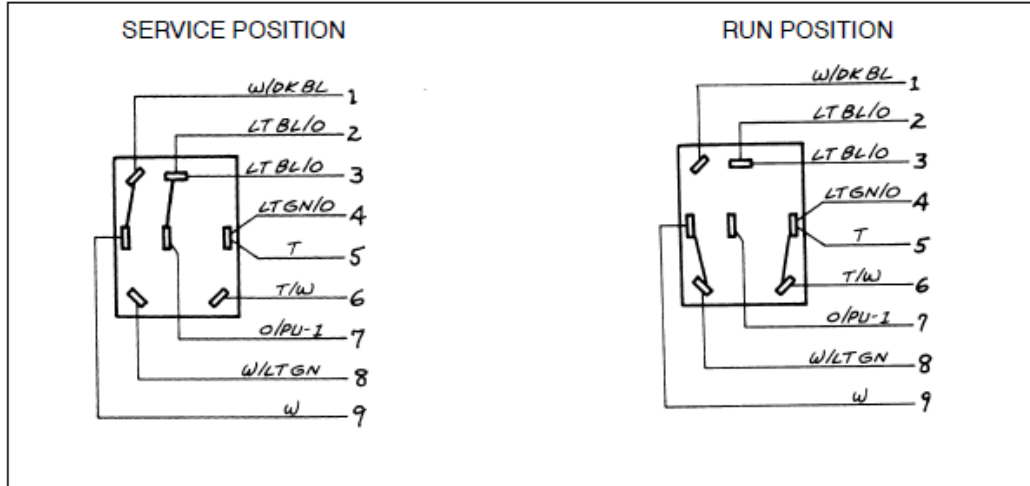


Figure 3-135

SERVICE/RUN SWITCH - RUN POSITION

Ref	Color	Destination	Battery Voltage
1	W/DKBL	To Start Relay (engine panel)	Key "START" position (backfed from start interlock relay)
2	LTBL/O	From EIC Board Pin #5 (large connector)	Key "ON" position (will read 0.5 to 1.0 volt below battery voltage)
3	LTBL/O	To Start Interlock Relay (engine panel)	Key "ON" position (will read 0.5 to 1.0 volt below battery voltage)
4	LTGN/O	To Manual Preheat Switch	Sitting in Seat
5	T	From Seat Switch(es)	Sitting in Seat
6	T/W	To EIC Board Pin #4 (large connector)	Sitting in Seat
7	O/PU 1	From 5A Fuse (spare) (cab panel)	Key "ON" position
8	W/LTGN	To Start Interlock Relay (engine panel)	Key "START" position
9	W	From Key Switch (Ignition)	Key "START" position

SERVICE/RUN SWITCH - SERVICE POSITION

Ref	Color	Destination	Battery Voltage
1	W/DKBL	To Start Relay (engine panel)	Key "START" position
2	LTBL/O	From EIC Board Pin #5 (large connector)	Key "ON" position
3	LTBL/O	To Start Interlock Relay (engine panel)	Key "ON" position
4	LTGN/O	To Manual Preheat Switch	Sitting in Seat
5	T	From Seat Switch(es)	Sitting in Seat
6	T/W	To EIC Board Pin #4 (large connector)	No Voltage Anytime
7	O/PU 1	From 5A Fuse (cab panel)	Key "ON" position
8	W/LTGN	To Start Interlock Relay (engine panel)	No Voltage Anytime
9	W	From Key Switch (ignition)	Key "START" position

SEAT AND SEAT BELT SWITCH WIRING

Ref	Color	Destination	Battery Voltage
1	LTGN	To EIC Board Pin #11 (large connector)	Seat Belt Buckled
2	T	From Seat Switch(es)	Sit in Seat
3	T	To Seat Belt switch	Sit in Seat
4	LTGN/R	From Electronics 5A Fuse (engine panel)	All Times
5	T	To Service/Run Switch	Sit in Seat

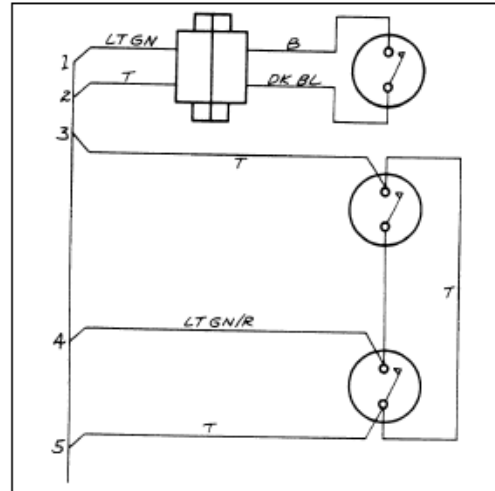


Figure 3-141

SEAT SWITCH REMOVAL

1. Disconnect the negative (-) battery cable.
2. Raise the seat and securely latch in the raised latched position, 1.



CAUTION: NEVER WORK UNDER A RAISED SEAT UNLESS IT IS SECURELY LATCHED IN THE RAISED POSITION.

3. Remove the seat retaining hardware, 2.
4. Holding the seat in place, lower the seat pan and seat and unplug the seat switch(es).
5. Remove the seat from the loader.
6. Disconnect the wire harness from the switch(es) by releasing the latch away from the switch.
7. Remove the switch(es) from the seat pan. The standard seat uses one switch, 1, and the deluxe seat uses two switches, 2.

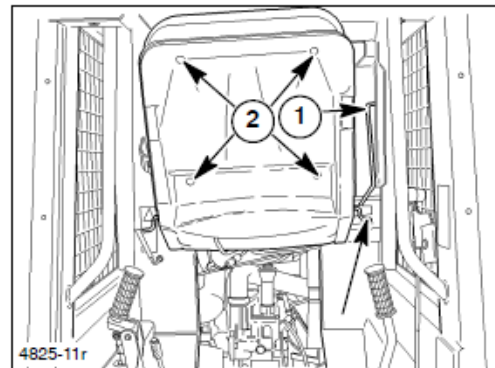


Figure 3-142

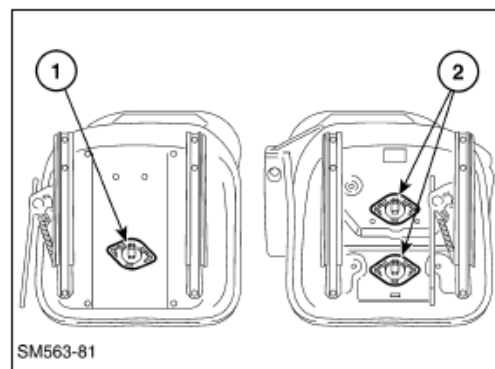


Figure 3-143

ENGINE FUSE AND RELAY PANEL

The engine panel electrical components are shown here:

1. Accessory relay (if equipped)
2. Heater power relay (if equipped)
3. Preheat circuit breaker
4. Start interlock relay
5. Optional fuse block (if equipped)
6. Standard fuse block
7. Alternator excite resistor
8. Start relay
9. Preheat relay

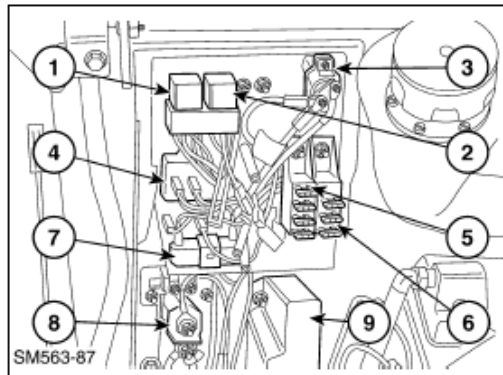


Figure 3-149

To access the electrical components in the engine compartment, raise the boom and rest it on the boom lock pins.



CAUTION: NEVER WORK UNDER A RAISED BOOM UNLESS IT IS PROPERLY SUPPORTED BY THE BOOM LOCK PINS.

START INTERLOCK RELAY WIRING

Service/Run Switch - Run Position

Ref	Color	Destination	Battery Voltage
1	W/LTGN	From Service/Run Switch	Key "START" position
2	O	From Cab Fuse Panel 5A Electronic Ignition Fuse	Key "ON" position
3	LTBL/O	To Fuel Solenoid	Key "ON" position *
4	LTBL/O	From EIC Board Pin #5, P2 connector	Key "ON" position *
5	W/DKBL	To Start Relay	Key "START" position Sitting in Seat with Seat Belt Buckled
6	W/O	From Connector at Boom/Bucket Control Valve	Key "START" position Sitting in Seat with Seat Belt Buckled
7	B-4	To Start Relay	Ground Circuit

Service/Run Switch - Service Position

Ref	Color	Destination	Battery Voltage
1	W/LTGN	From Service/Run Switch	No Voltage Anytime
2	O	From Cab Fuse Panel 5A Electronic Ignition Fuse	Key "ON" position
3	LTBL/O	To Fuel Solenoid	Key "ON" position
4	LTBL/O	From EIC Board Pin #5	Key "ON" position
5	W/DKBL	To Start Relay	Key "START" position
6	W/O	From Connector at Boom/Bucket Control Valve	Sitting in Seat with Seat Belt Buckled
7	B-4	To Start Relay	Ground Circuit

* Voltage will be 0.5 to 1.0 volt below battery voltage.

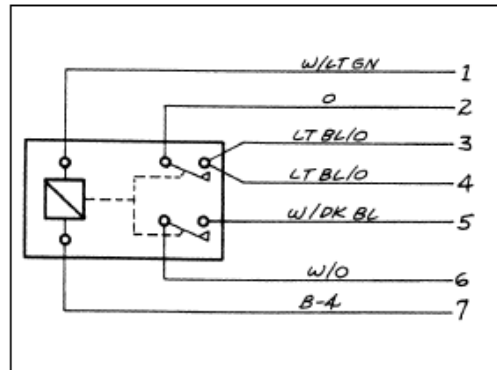


Figure 3-154

ENGINE FUSE PANEL WIRING

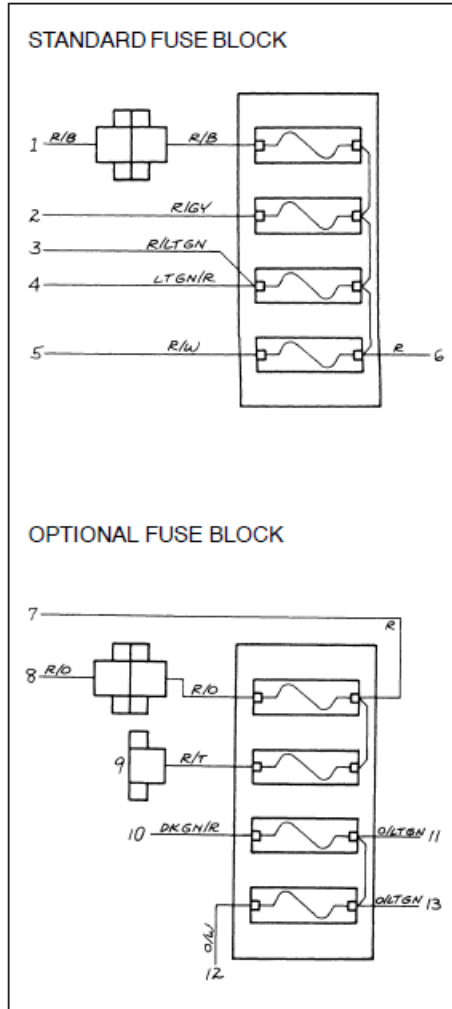


Figure 3-156

Ref	Color	Destination	Battery Voltage
1	R/B	(10A Fuse) To Turn Signal Relay	All Times
2	R/GY	(25A Fuse) To Accessory Relay	All Times
3	R/LTGN	(5A Fuse) To EIC board Pin #14 P2 connector.	All Times
4	LTGN/R	(5A Fuse) To Seat Switch(es)	All Times
5	R/W	(15A Fuse) To Key Switch (Battery Terminal)	All Times
6	R	From Preheat Circuit Breaker	All Times
7	R	From Start Relay	All Times
8	R/O	(20A Fuse) To Heater Power Relay	All Times
9	R/T	(7.5A Fuse) Spare	All Times
10	DKGN/R	(15A Fuse) To High Flow, Horn, Power Outlet	Key "ON" position
11	O/LTGN	From Accessory Relay	Key "ON" position
12	O/W	(5A Fuse) To Back Up Alarm Switch	Key "ON" position
13	O/LTGN	From Road/Work light fuse (cab panel)	Key "ON" position

3 in this fuse panel feeds the seat switches.

