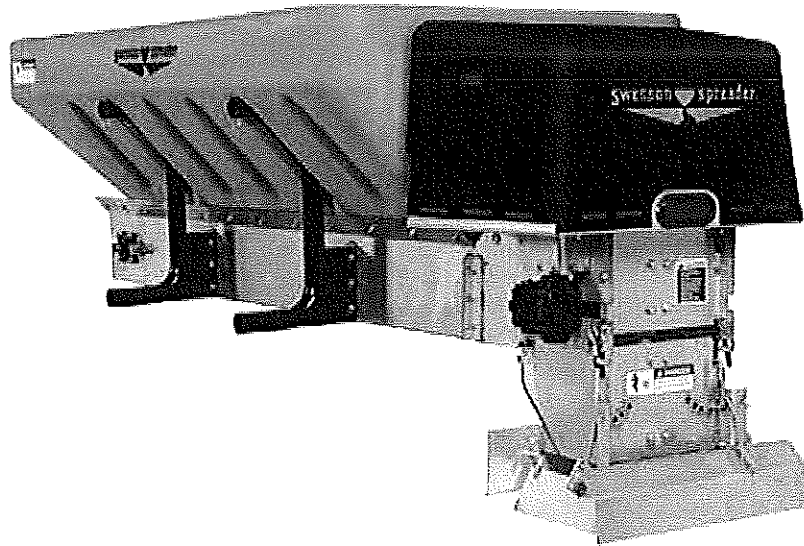


SUPPLMENTAL INSTALLATION and PARTS MANUAL ELECTRIC DRIVE POLYHAWK™ PV



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SWENSON  **SPREADER®**

INSTALLATION INSTRUCTIONS

WIRING ELECTRIC DRIVE SPREADERS



WARNING!

USE SAFETY GLASSES OR OTHER FACE PROTECTION AGAINST POSSIBLE BATTERY EXPLOSION. DO NOT SMOKE AND AVOID OTHER SOURCES OF IGNITION.



WARNING!

BEFORE BEGINNING ANY INSTALLATION ON THIS UNIT, DISCONNECT THE VEHICLES NEGATIVE BATTERY CABLE(S).

POWER REQUIREMENTS:

MINIMUM:

Trucks Mfg's Snow Plow Package With Hi-Amp (135 amp) Alternator

RECOMMENDED:

Dual Batteries or Dual Alternators.

NOTE:

Use dielectric grease on all electrical connections.

Keep all wires away from sharp, hot or moving parts.

SPREADER WIRING MOUNTING:

1. In engine compartment of truck, find a suitable mounting location for the circuit breaker/relay panel (area should be dry and protected from road splash) within 14" of the main battery. Mount panel with self-tapping screws supplied.
2. Attach the 18" long battery cable to the circuit breaker terminal marked BAT. (**DO NOT ATTACH TO BATTERY AT THIS TIME**)
3. At rear of truck, locate the 22ft long truck side wiring harness from rear bumper (plug side to rear) and along the truck frame to the circuit breaker/relay panel in the engine compartment. (Harness is long enough for most compact thru regular full size standard cab/8ft long bed pick-up trucks. For extended and crew cab the optional 5ft extension wiring harness is required.)
4. Attach Black (shorter) cable of the truck side wiring harness to a clean location on the trucks frame. Connect Red (longer) cable to the circuit breaker/relay panel. Secure all wiring with wire ties provided. Excess cable must be coiled up and secured.

5. Connect spreader side wiring cable to electric motor. The electric motor is a one directional design, energizing either terminal, motor will turn CW when viewed from the top.

SPREADER CONTROL MOUNTING:



WARNING!

CONSULT VEHICLE MANUFACTURER FOR ACCEPTABLE MOUNTING LOCATIONS.

THE CONTROL SWITCH COULD INTERFERE WITH THE AIR BAG(S) AND THE OTHER FUNCTIONS OF THE OCCUPANT PROTECTIVE SYSTEMS, SUCH AS KNEE BOLSTERS!

6. Select a suitable location in the cab of the truck to mount the spreader control switch. Drill 1/2" diameter mounting hole for switch. (**DO NOT MOUNT SWITCH AT THIS TIME**)
7. Route 14ga black wire from switch location thru grommets wire exit in cab's firewall to the circuit breaker/relay panel. Cut wire to size and attach terminals. Connect to switch and relay.
8. Using 14ga white wire, cut (2) ground wires to size and attach terminals, (1st) from switch location to ground, (2nd) from relay to ground. Connect wires.
9. Using remaining 14ga black wire, cut power wire to size and attach terminals from switch location to trucks fuse panel. Assemble switch and switch guard in mounting hole. Connect wires to switch and a **KEY OPERATED** circuit on fuse panel. (**DO NOT USE A CIRCUIT THAT IS USED FOR AN OCCUPANT SAFETY SYSTEM**)
10. With all switches in **OFF** position, connect the negative battery cable(s) to battery. Plug cable from spreader into socket mounted on truck.
11. Close shroud, spreader is now ready for test run.

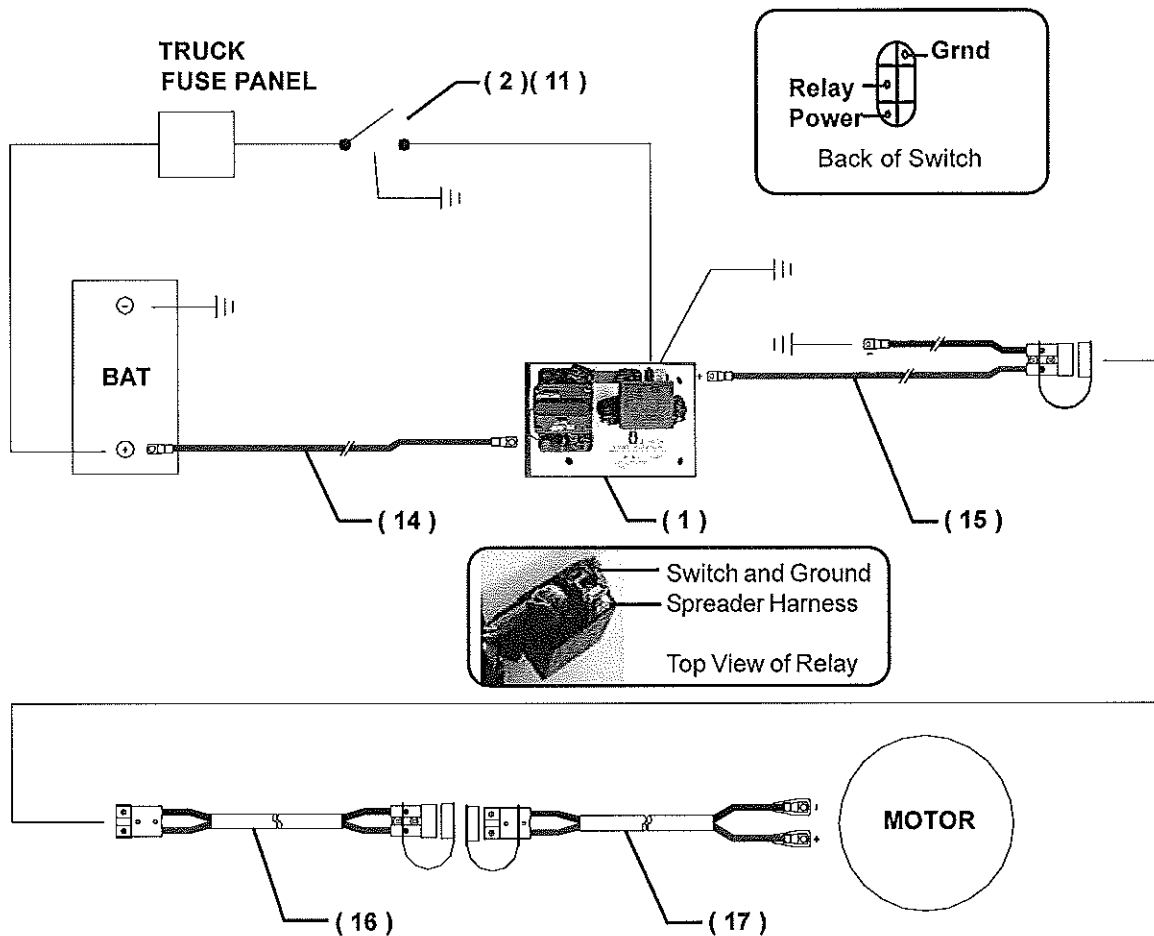
NOTE: SUPPLIED TERMINALS ARE HEAT SEALABLE



WARNING!

NEVER OPERATE MACHINE WITH ENGINE SHROUD REMOVED. NEVER CLIMB INTO THE HOPPER WHILE IT IS OPERATING OR CAPABLE OF BEING OPERATED. SERIOUS INJURY OR DEATH MIGHT OCCUR.

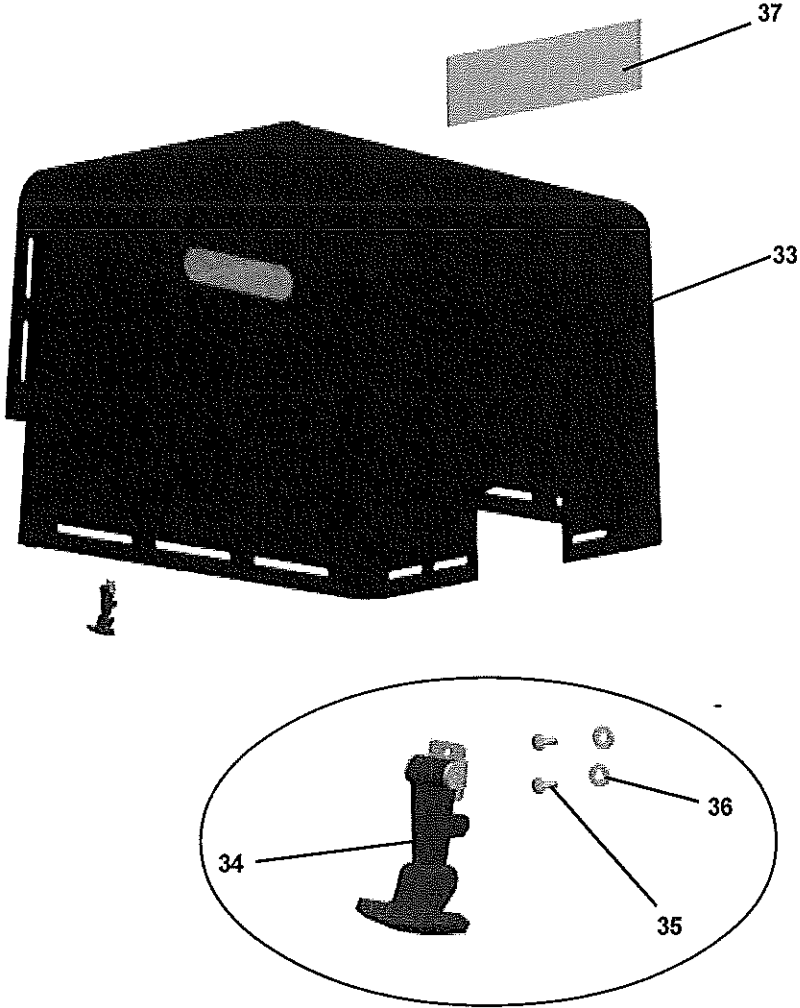
INSTALLATION INSTRUCTIONS WIRING ELECTRIC DRIVE SPREADERS



<u>Item</u>	<u>Part Number</u>	<u>Qty</u>	<u>Description</u>
1	04640-045-00	1	Assy, Relay/Circuit Breaker
1A	04609-012-00	1	Breaker, Circuit
1B	04640-044-00	1	Relay, 12Vdc, 75Amp
2	04640-043-00	1	Switch, On/Off Toggle Lum
N/S	04638-112-02	2	Heat Sealed Terminal - Ring
N/S	04638-114-01	2	Heat Shrink Terminal - Male Push-on
N/S	04638-115-02	6	Heat Shrink Term. - Female Push-on
N/S	04002-066-04	3	Screw, 1/4-14 x 1 hwh Teks/3
N/S	04004-002-05	3	Flatwasher, 1/4" S.A.E. Zp
N/S	04004-001-05	3	Lockwasher, 1/4" Med Split, Zp.
N/S	04607-013-00	8	Tie, Nylon 5 1/2" Std.
N/S	04540-013-03	1	Grease, Dielectric, 4 Gram Tube
11	04640-046-00	1	Guard, Switch
N/S	04616-037-00	15ft	Wire, 14 Ga. Black Insulated
N/S	04616-016-00	6ft	Wire, 14 Ga. White Insulated
14	04616-107-00	1	Cable, Battery
15	04616-109-00	1	Assy, Wiring Harness - Truck Side
16	04616-110-00	1	Assy, Wiring Harness - 5ft Extension
17	04616-111-00	1	Assy, Wiring Harness - Spreader Side

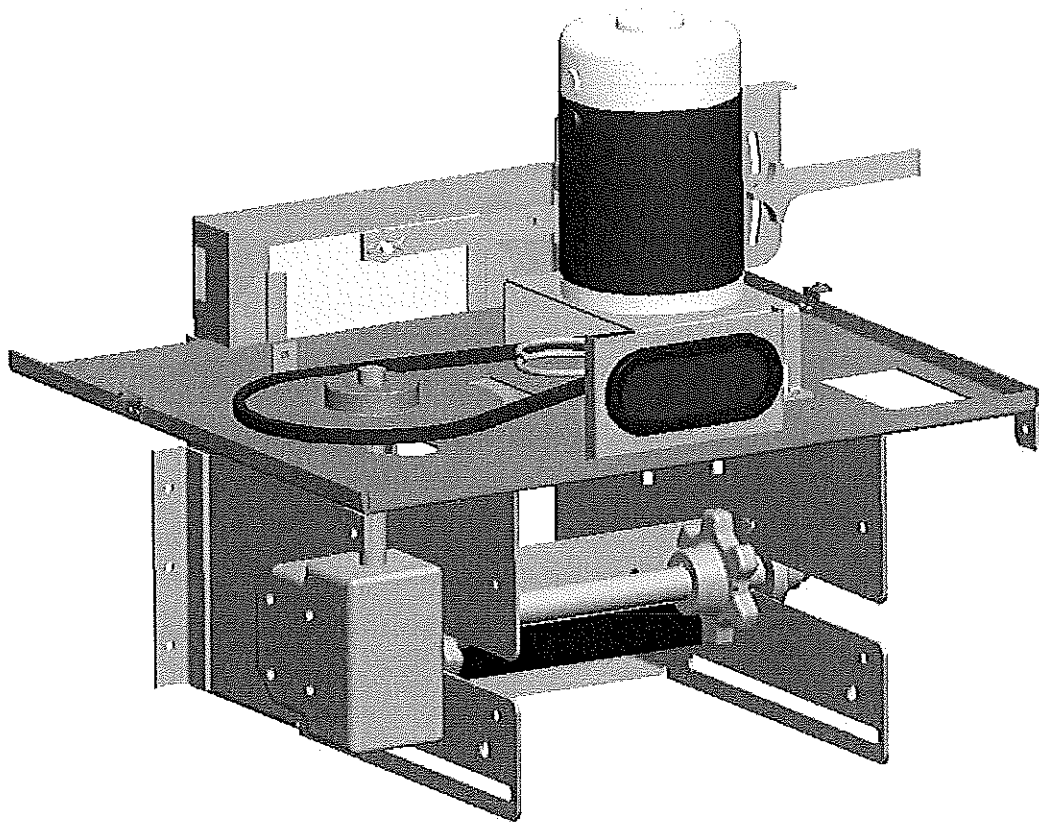
N/S = Not Shown

PARTS LIST FOR ELECTRIC DRIVE MODULE



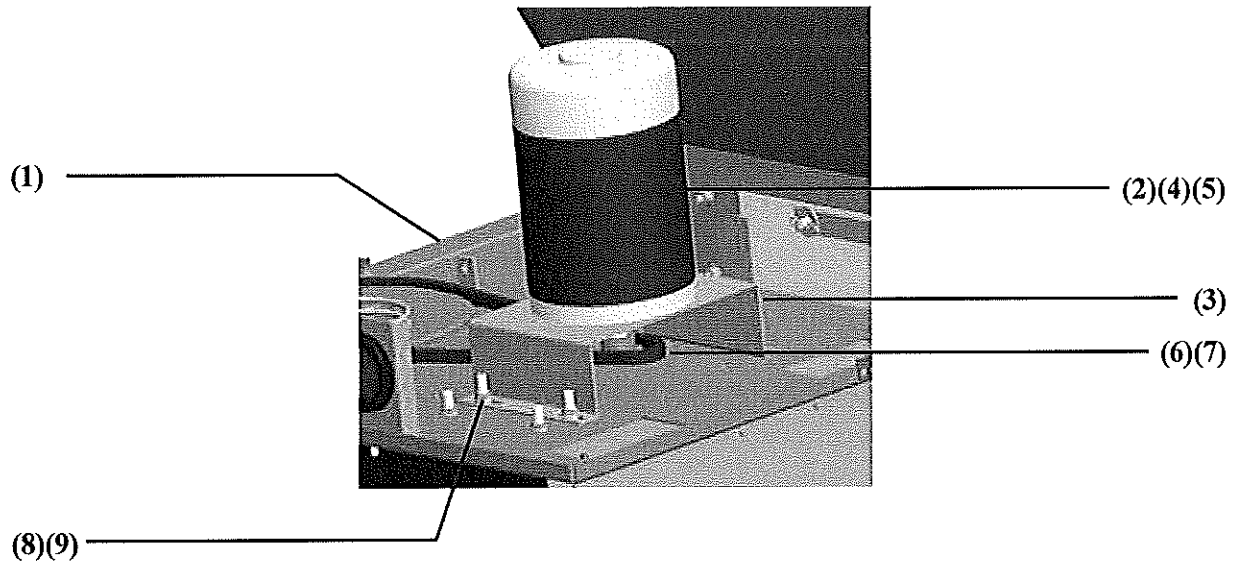
<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
33	04622-064-00	1	Shroud, ABS Lift Off
34	04019-020-01	2	Handle, Rubber "T"
35	04002-031-00	4	Rivet, 1/8" X 3/8" Pop Round Head
36	04004-002-02	4	Flatwasher, #6, ZP
37	04049-125-00	1	Decal, Swenson Logo

PARTS LIST FOR ELECTRIC DRIVE MODULE



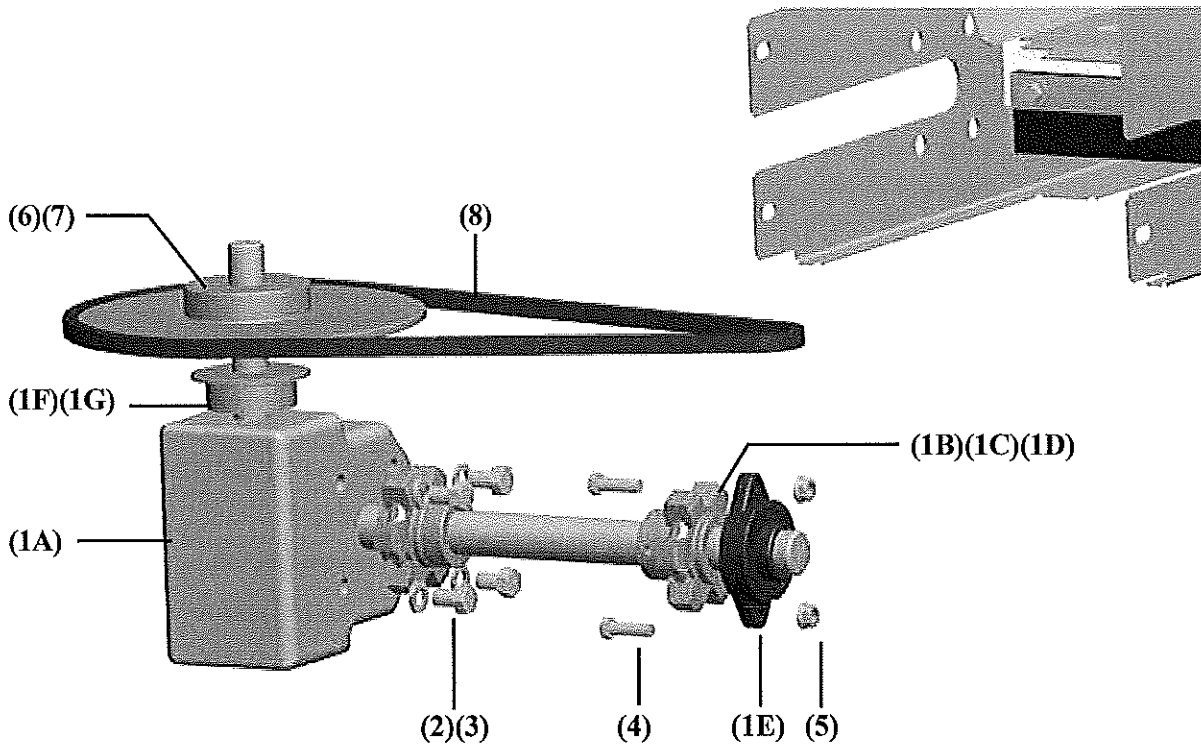
<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	00119-918-00	1	Assembly, Rear Honda Engine Module
N/S	04003-003-20	6	Bolt, 3/8-16 X 1" HH, SS (Module Mounting)
N/S	04003-806-12	6	Nut, 3/8-16 Serrated Flange, SS (Module Mounting)

PARTS LIST FOR ELECTRIC DRIVE



<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	00119-918-01	1	Weld, Engine Module
2	04150-047-00	1	Motor, Electric 12 vdc
3	00119-917-00	1	Forming, Motor Adapter Plate
4	04003-003-01	4	Bolt, 3/8-16 X 3/4" HH, zp
5	04004-001-07	4	Lockwasher, 3/8" Med Split, zp
6	04031-009-00	1	Key, 3/16" Sq x 1
7	04041-120-00	1	Sprocket, 40B11
8	04003-033-13	4	Bolt, 3/8-16 x 3/4" Car SS Sht Nk
9	04003-806-12	6	Nut, 3/8-16 Serrated Flange, SS

PARTS LIST FOR ELECTRIC DRIVE GEARBOX



<u>Item</u>	<u>Part Number</u>	<u>Qty.</u>	<u>Description</u>
1	00119-919-00	1	Assy, Gearbox (W/Sprockets & Bearing)
1A	04132-134-00	1	*Gearbox, 20:1
1B	00102-348-00	2	*Sprocket, 6T, Keyed
1C	04031-002-00	2	*Key, 1/4" Sq x 1-1/2"
1D	04007-009-03	4	*Setscrew, 3/8-16 x 3/8" Al Hd
1E	04080-005-00	1	*Bearing, 1-1/4
1F	04041-086-00	1	*Sprocket, 41B19
1G	04009-001-01	1	*Key, 1/4" x 7/8" Woodruff
2	04003-005-56	4	Bolt, 1/2-13 x 3/4 HH, SS
3	04004-001-16	4	Lockwasher, 1/2 Med Split, SS
4	04003-003-26	2	Bolt, 3/8-16 x 1-1/4 HH SS
5	04003-806-12	2	Nut, 3/8-16 Ser Flange, SS
6	04041-121-00	1	Sprocket, 40B60
7	04031-008-00	1	Key, 1/4" Sq x 1-1/4"
8	04046-020-02	1	Chain, Roller #40-90 W/Connector Link



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**IMPORTANT
INFORMATION
ENCLOSED**

