

Genie®

Service Manual

refer to inside cover for serial number information

Part No. 72876
September 2006
Rev C2

GS™-1530
GS™-1930

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Specifications

REV C

Machine Specifications, GS-1530

Batteries	
Type	6V DC
Group	T-105
Quantity	8
Battery capacity, maximum	225AH
Reserve capacity @ 25A rate	447 minutes
Fluid capacities	
Hydraulic tank	5 gallons 18.9 liters
Hydraulic system (including tank)	5.5 gallons 20.8 liters
Tires and wheels	
Tire size (solid rubber)	12 x 4.5 x 8.6 in 30.5 x 11.4 x 21.8 cm
Tire contact area	9 sq in 58 sq cm
Overall tire diameter	12 in 30.5 cm
Wheel diameter	8.6 in 21.8 cm
Wheel width	4.5 in 11.4 cm
Castle nut torque, dry	300 ft-lbs 406.7 Nm
Castle nut torque, lubricated	225 ft-lbs 305 Nm

For operational specifications, refer to the Operators Manual.

Performance Specifications, GS-1530

Drive speed, maximum	
Platform stowed	2.5 mph 40 ft / 10.7 sec 4 km/h 12.2 m / 10.7 sec
Platform raised	0.5 mph 40 ft / 55 sec 0.7 km/h 12.2 m / 55 sec
Braking distance, maximum	
High range on paved surface	2 ft 61 cm
Load capacity, maximum	
Platform retracted	600 lbs 272 kg
Platform only	350 lbs 159 kg
Extension only	250 lbs 113 kg
Function speed, maximum from platform controls (with 1 person in platform)	
Platform up	15 to 17 seconds
Platform down	16 to 18 seconds
Airborne noise emissions Maximum sound level at normal operation workstations (A-weighted)	<70 dB
Gradeability	30%

Continuous improvement of our products is a Genie policy. Product specifications are subject to change without notice.

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6-4
Valve Coils

How to Test a Coil

A properly functioning coil provides an electromotive force which operates the solenoid valve. Critical to normal operation is continuity within the coil that provides this force field.

⚠WARNING Electrocution hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

1 Tag and disconnect the wire harness from the coil to be tested.

2 Test the coil resistance.

⊙ Result: The resistance should be within specification, plus or minus 30%.

⊙ Result: If the resistance is not within specification, plus or minus 30%, replace the coil.

Valve Coil Resistance Specifications

Description	Specification
Solenoid valve, 3 position 4 way 20V DC with diode (schematic item AF and BI)	25 to 27 Ω
Solenoid valve, 2 position 4 way 20V DC with diode (schematic item AG)	18 to 20 Ω
Solenoid valve, N.O. poppet 20V DC with diode (schematic item AH)	25 to 27 Ω
Solenoid valve, 3 position 4 way 20V DC with diode (schematic item AI and BJ)	18 to 20 Ω
Solenoid valve, 2 position 4 way 20V DC with diode (schematic item BG)	18 to 20 Ω

How to Test a Coil Diode

Genie incorporates spike suppressing diodes in all of its coils. Properly functioning coil diodes protect the electrical circuit by suppressing voltage spikes. Voltage spikes naturally occur within a function circuit following the interruption of electrical current to a coil. Faulty diodes can fail to protect the electrical system, resulting in a tripped circuit breaker or component damage.

⚠WARNING Electrocution hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

1 Test the coil for resistance. See 6-4 *How to Test a Coil.*

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Troubleshooting Flow Charts



Observe and Obey:

- ☑ Troubleshooting and repair procedures shall be completed by a person trained and qualified on the repair of this machine.
- ☑ Immediately tag and remove from service a damaged or malfunctioning machine.
- ☑ Repair any machine damage or malfunction before operating the machine.
- ☑ Unless otherwise specified, perform each repair procedure with the machine in the following configuration:
  - Machine parked on a firm, level surface
  - Platform in stowed position
  - Key switch in the off position with the key removed
  - Wheels chocked

Before Troubleshooting:

- ☑ Read, understand and obey the safety rules and operating instructions printed in the *Genie GS-1530 and GS-1930 Operator's Manual.*
- ☑ Be sure that all necessary tools and test equipment are available and ready for use.
- ☑ Read each appropriate flow chart thoroughly. Attempting shortcuts may produce hazardous conditions.
- ☑ Be aware of the following hazards and follow generally accepted safe workshop practices.

⚠DANGER Crushing hazard. When testing or replacing any hydraulic component, always support the structure and secure it from movement.

⚠DANGER Electrocution hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

⚠WARNING Bodily injury hazard. Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.

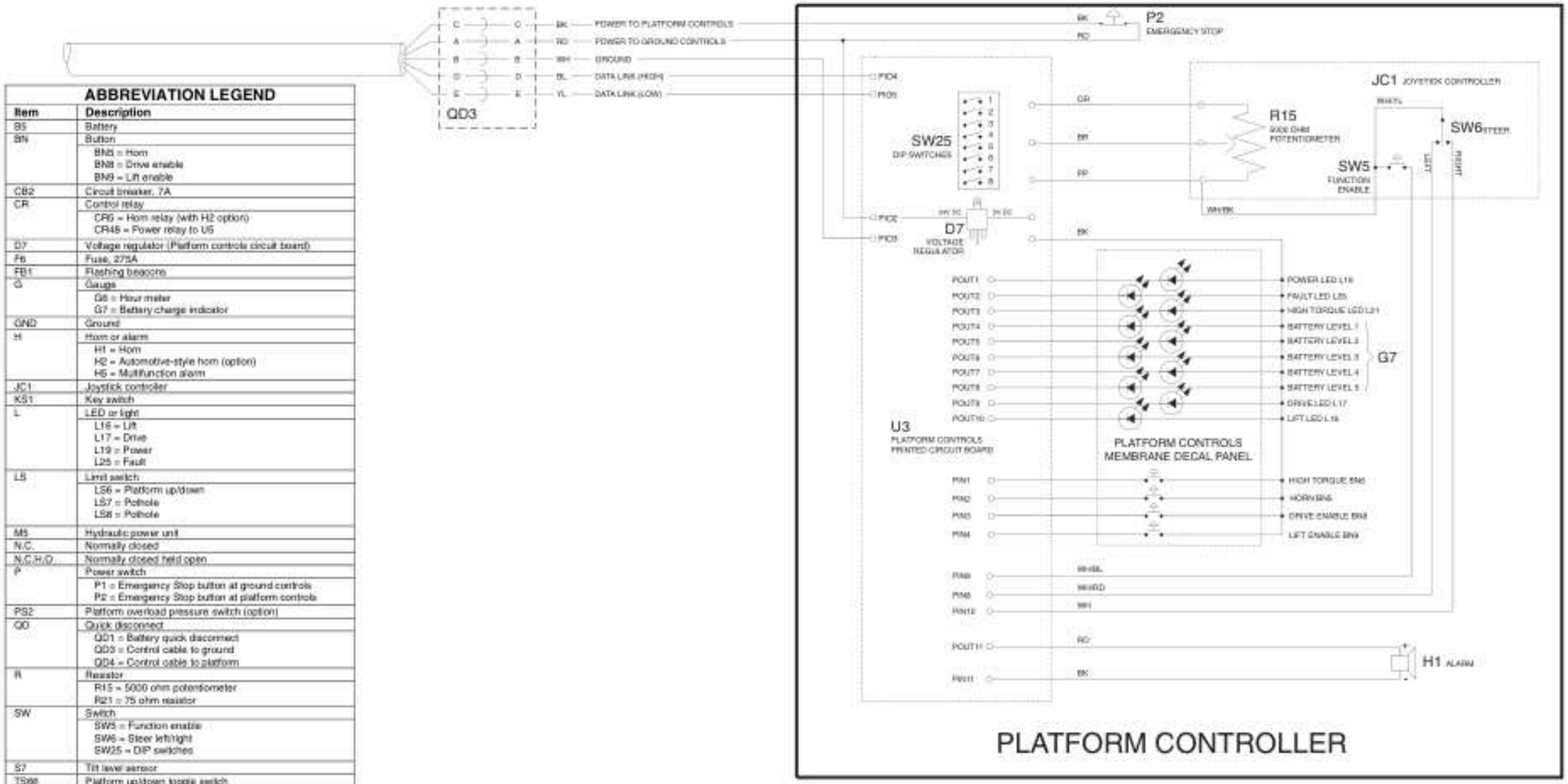
NOTICE Two persons will be required to safely perform some troubleshooting procedures.

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REV B

Electrical Schematic
(from serial number 40926 to 49804)

N M L K J I H G F E D C B A



1 2 3 4 5 6 7 8

ABBREVIATION LEGEND

Item	Description
BS	Battery
BN	Button BN8 = Horn BN8 = Drive enable BN9 = Lift enable
CB2	Circuit breaker, 7A
CR	Control relay CR6 = Horn relay (with H2 option) CR48 = Power relay to U5
D7	Voltage regulator (Platform controls circuit board)
F6	Fuse, 275A
FB1	Flashing beacons
G	Gauge G6 = Hour meter G7 = Battery charge indicator
GND	Ground
H	Horn or alarm H1 = Horn H2 = Automotive-style horn (option) H5 = Multifunction alarm
JC1	Joystick controller
KS1	Key switch
L	LED or light L16 = Lift L17 = Drive L19 = Power L25 = Fault
LS	Limit switch LS6 = Platform up/down LS7 = Pothole LS8 = Pothole
M5	Hydraulic power unit
N.C.	Normally closed
N.C.H.O.	Normally closed held open
P	Power switch P1 = Emergency Stop button at ground controls P2 = Emergency Stop button at platform controls
PS2	Platform overload pressure switch (option)
QD	Quick disconnect QD1 = Battery quick disconnect QD3 = Control cable to ground QD4 = Control cable to platform
R	Resistor R15 = 5000 ohm potentiometer R21 = 75 ohm resistor
SW	Switch SW5 = Function enable SW6 = Steer left/right SW25 = DIP switches
S7	Tilt level sensor
TS66	Platform up/down toggle switch
U	Electronic component U3 = Encoder printed circuit board U5 = Electronic control module U6 = Motor controller U9 = Battery charger U13 = Voltage inverter (option) U27 = 47 mH inductor, noise suppression
Y	Valve coil Y3 = Steer right Y4 = Steer left Y5 = Drive reverse Y6 = Drive forward Y7 = Platform down Y8 = Platform up

WIRE COLOR LEGEND

Color	Description
BL	Blue
BK	Black
BN	Brown
GN	Green
OR	Orange
RD	Red
WH	White
YL	Yellow

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