TEREX®

Service Manual

RL™4 LED

Part No. 1287632GT
Rev A
March 2018

MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT

Order the manual at mid-west-tech.com >

Table of Contents

Introduction	**Introduction**	**ii**
	Important Information	ii
	Serial Number Legend	3
Section 1	**Safety Rules**	**iv**
	General Safety Rules	iv
Section 2	**Specifications**	**1**
	Machine Specifications	1
	Performance Specifications	1
	Inverter Options	1
	Machine Torque Specifications	1
	SAE and Metric Fasteners Torque Charts	2
Section 3	**Scheduled Maintenance Procedures**	**3**
	Introduction	3
	Pre-Delivery Preparation Report	6
	Maintenance Inspection Report	7
	Checklist A Procedures	**8**
	A-1 Inspect the Manuals and Decals	8
	A-2 Perform Pre-operation Inspection	9
	A-3 Perform Function Tests	9
	A-4 Perform Inverter Maintenance	10
	A-5 Perform Coupler Maintenance	10
	A-6 Test the Brakes (if equipped)	11
	A-7 Torque the Wheel Lug Nuts	11
	A-8 Perform Inverter Maintenance	12
	A-9 Check the Tires and Wheels	12
	A-10 Inspect the Cable and Cable Pulleys	13
	A-11 Adjust the Brakes (if equipped)	14
	A-12 Perform Inverter Maintenance	15
	A-13 Perform Inverter Maintenance	15
	A-14 Perform Inverter Maintenance	16

MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT Order the manual at mid-west-tech.com >

Table of Contents

Checklist B Procedures **17**
B-1 Inspect the Electrical Wiring 17
B-2 Torque the Wheel Lug Nuts 17
B-3 Inspect and Lubricate the Winch 18
B-4 Lubricate the T-bolt 18
B-5 Inspect and Adjust the Brakes (if equipped) 19
B-6 Inspect the Suspension 21
Checklist C Procedures **22**
C-1 Clean the LED Modules 22
C-2 Grease the Wheel Bearings 22
C-3 Inspect the Electric Brake Magnets (if equipped) 24
Checklist D Procedures **26**
D-1 Perform Coupler Maintenance 26
Checklist E Procedures **27**
E-1 Inspect the Cable and Cable Pulleys 27
E-2 Perform Inverter Maintenance 28

MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT Order the manual at mid-west-tech.com >

Table of Contents

Section 4	**Repair Procedures**	**29**
	Introduction	29
	LED Module	**31**
	1-1 How to Remove a LED Module	31
	Mast	**32**
	2-1 How to Remove the Mast Assembly	32
	2-2 How to Disassemble the Mast Assembly	32
	2-3 How to Replace the Mast Lift Cables	34
	2-4 How to Remove the Manual Winch	35
	2-5 How to Disengage the Tower Lock	35
	Inverter	**37**
	3-1 Champion 3.5 KW Inverter	37
Section 5	**Diagnostics**	**38**
	Introduction	38
	Diagnostic Charts	**39**
Section 6	**Schematics**	**41**
	Introduction	41
	Wire Color Legend	42
	Engine Inverter Electrical Schematic	44
	AC Control Schematic	48
	Running Lights	49

MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT Order the manual at mid-west-tech.com >

Specifications

Machine Specifications

Total lighting wattage	4 X 230 Watt LED Modules
Fuel capacities	
Single tank	17.5 gallons 66.25 liters
Tires and wheels	
Tire size	ST175/80D13
Load range	C
Lug nut torque, dry	90 ft-lbs 122 Nm
Lug nut torque, lubricated	67.5 ft-lbs 91.5 Nm

Performance Specifications

Tongue weight, maximum	
With fuel (17.5 gallon tank)	203 lbs 92 kg
Run time	
17.5 gallon tank	80 hours

For operational specifications, refer to the Operator's Manual.

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

Inverter Options

Champion 3.5 KW Inverter	
Temperature, ambient maximum	104° F 40° C
Model	100467
Watts (Starting/Running)	4000/3500
AC Volts	120
AC Amps @ 120 V	29.2
DC Volts	12-24 VDC
DC Amps	4-8 amps DC
Frequency	60 Hz
Phase	Single

Machine Torque Specifications

Wheel lugs	
Lug nut torque, lubricated	67.5 ft-lbs 91.5 Nm
Lug nut torque, dry	90 ft-lbs 122 Nm

MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT Order the manual at mid-west-tech.com >

Diagnostics



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 procedure with the machine in the following configuration:
  - Machine parked on a firm, level surface
  - Mast in the stowed position
  - Key switch in the off position with the key removed
  - The red Emergency Stop button in the off position on the electrical control box
  - Wheels chocked
  - Light switches in the off position
  - All external AC power supply disconnected from the machine

Before Troubleshooting:

- ☑ Read, understand and obey the safety rules and operating instructions in the appropriate operator's manual on your machine.
- ☑ Be sure that all necessary tools and test equipment are available and ready for use.
- ☑ Read each appropriate fault code thoroughly. Attempting short cuts may produce hazardous conditions.
- ☑ Be aware of the following hazards and follow generally accepted safe workshop practices.

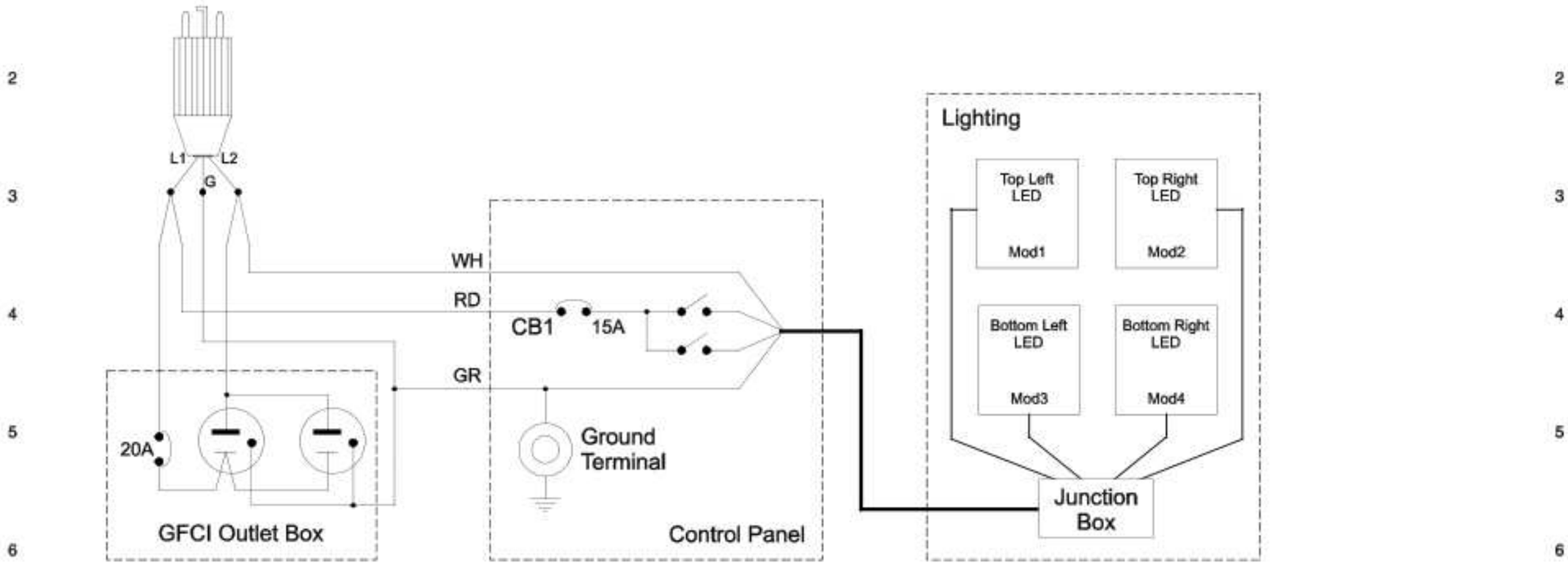
⚠WARNING Electrocution/burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

⚠DANGER High voltage. Exposure to electrical wires or electrical current will result in death or serious injury. Turn off all power when not needed for testing. Use extreme caution when working with high voltage electrical components.

⚠CAUTION Burn hazard. Beware of hot engine components. Contact with hot engine components may cause severe burns. Use caution when working around lamps or a hot engine.

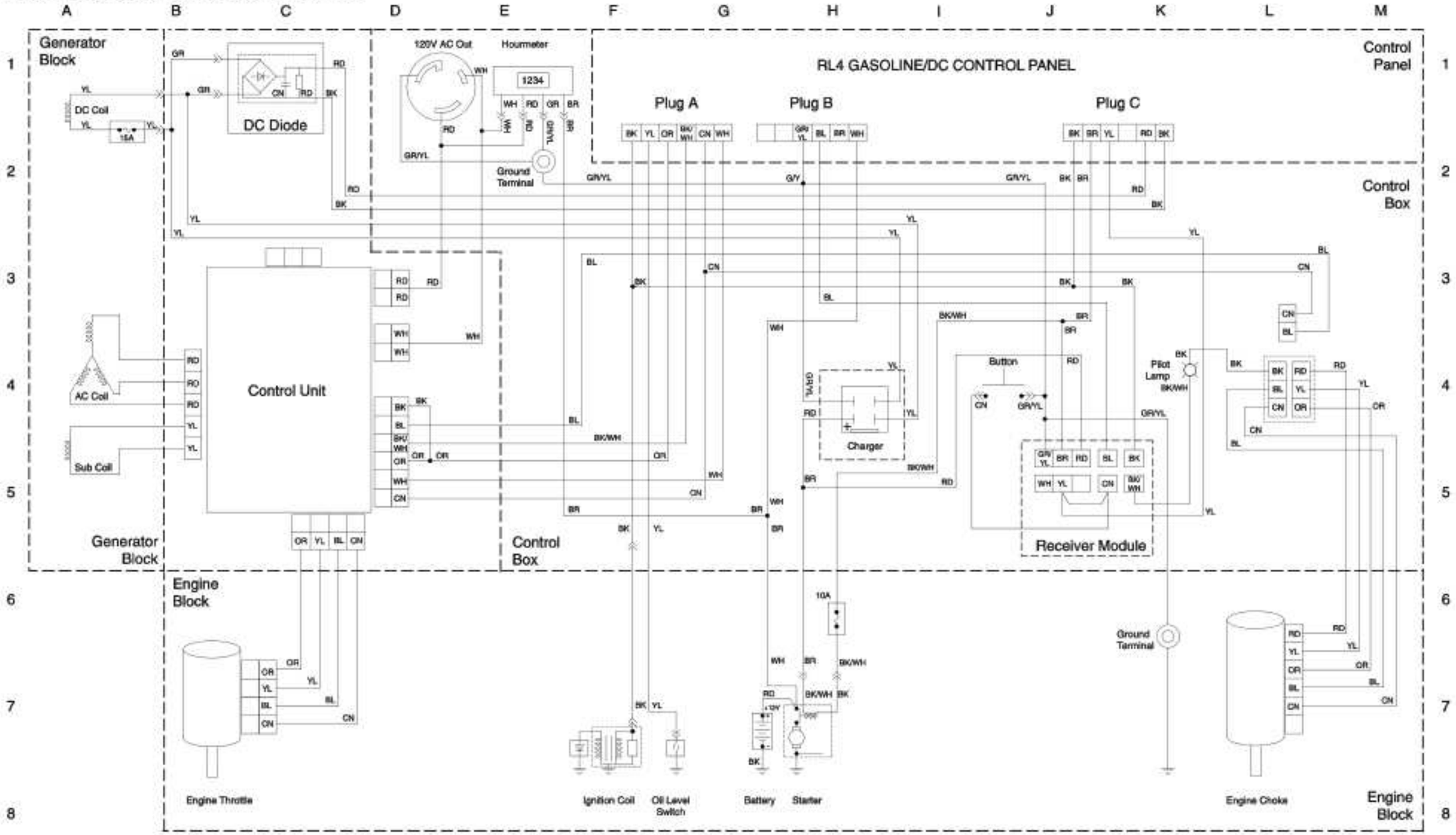
MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT Order the manual at mid-west-tech.com >

AC Control Schematic



MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT
Order the manual at mid-west-tech.com >

Engine Inverter Electrical Schematic



MidWestTech | Terex Genie RL 4 LED Light Tower Service Manual | Publication 1287632GT
Order the manual at mid-west-tech.com >