

SERVICE MANUAL (ANSI/CSA)

ROUGH TERRAIN SCISSORS

MODELS SJ8831 RT SJ8841 RT

157945AF April 9, 2024

SKYJACK

MidWestTech | Skyjack SJ8831 RT, SJ8841 RT Rough Terrain Scissor Lift Service Manual |... Order the manual at mid-west-tech.com >

Section 1
SCHEDULE MAINTENANCE

Table of Contents

Operator's Responsibility for Maintenance

Aerial Platform Definition....6
Purpose of Equipment....6
Use of Equipment....6
Manuals....6
Operating....6
Service & Maintenance....6
Operator Safety Reminders....7
Electrocution Hazard....8
Safety Precautions....9
Maintenance and Inspection Schedule....13
Owner's Annual Inspection Record....13
Replacement Parts....13
Maintenance and Service Safety Tips....13
Hydraulic System & Component Maintenance and Repair....14
Mainenance Hints....15
Railing Maintenance and Repair....15

Service and Maintenance

About this Section....16
Service Bulletins....16
Maintenance and Inspection....16
Maintenance Instructions....16

Tables

Table 1.1 Owner's Annual Inspection Record....17
Table 1.2 Maintenance and Inspection Checklist....18

Scheduled Maintenance

1.1 Scheduled Maintenance Inspections....19
1.2 Function Tests....31

MidWestTech | Skyjack SJ8831 RT, SJ8841 RT Rough Terrain Scissor Lift Service Manual |... Order the manual at mid-west-tech.com >

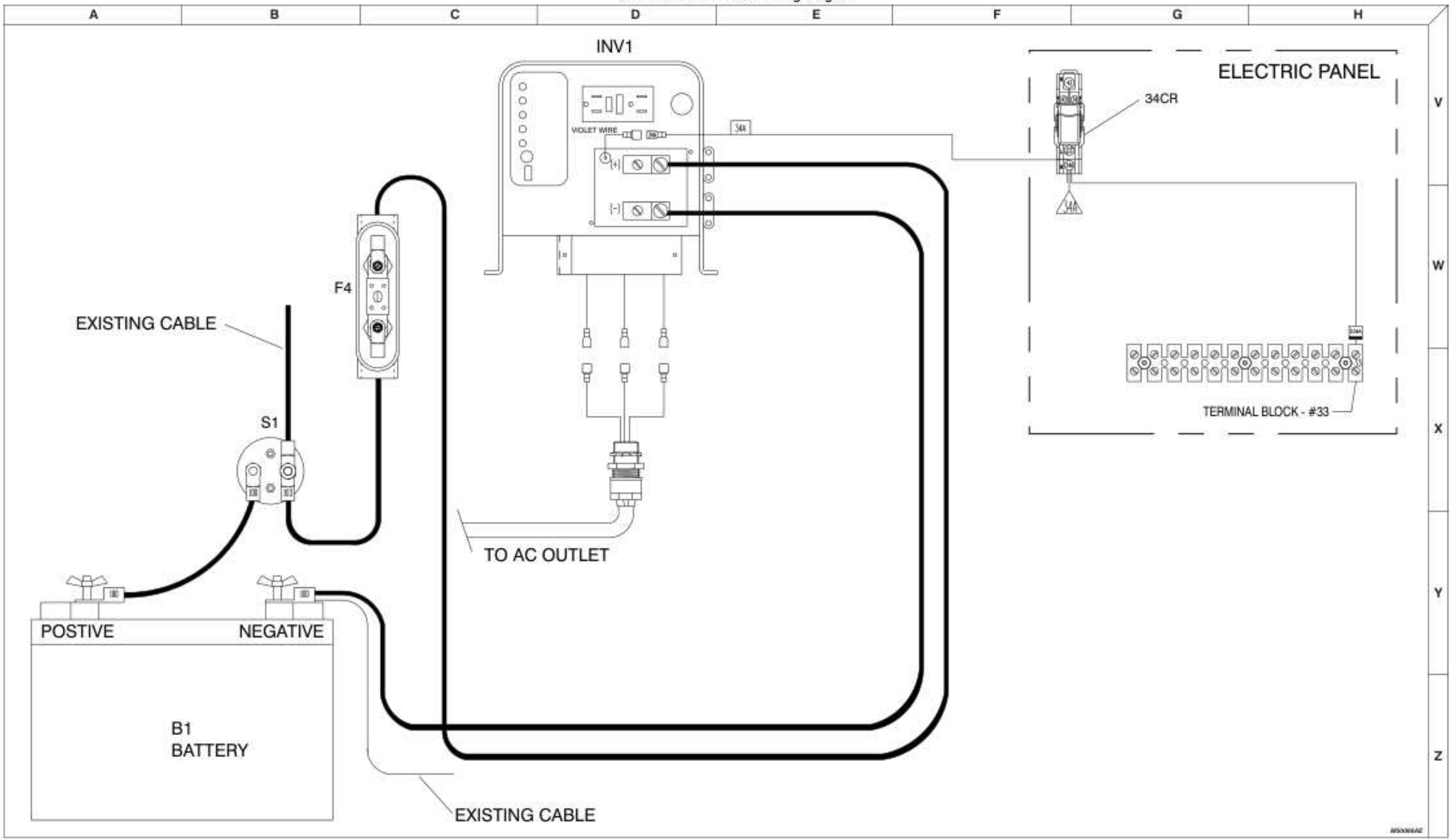
Table 2.2b Maximum Platform Capacities (Evenly Distributed w/ Optional #7 Tires)

MODEL		Total		First Extension		Second Extension	
		Capacity	Number of Occupants	Capacity	Number of Occupants	Capacity	Number of Occupants
7127	One Extension Platform	1500 lb. 681 kg	5	500 lb. 227 kg	2	Not Available	
7135	One Extension Platform	900 lb. 408 kg	3	300 lb. 136 kg	1	Not Available	
8831	No Extension Platform	2000 lb. 908 kg	6	Not Available			
	One Extension Platform	1700 lb. 771 kg	6	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1400 lb. 635 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2
8841	No Extension Platform	1250 lb. 567 kg	5	Not Available			
	One Extension Platform	1250 lb. 567 kg	5	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1250 lb. 567 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2
9250	No Extension Platform	1500 lb. 681 kg	5	Not Available			
	One Extension Platform	1500 lb. 681 kg	5	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1500 lb. 681 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2

803TMAE-ANSI-R

NOTE:
Occupants and materials are not to exceed rated load.
Refer to capacity label at sides of platform for additional information and for models equipped with options.

MidWestTech | Skyjack SJ8831 RT, SJ8841 RT Rough Terrain Scissor Lift Service Manual |... Order the manual at mid-west-tech.com >



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

5.10-2 Auto-leveling outrigger setting and error codes

Read the codes

Error codes are indicated with the flashing LED on the control module. When there is a fault, the LED on the outrigger control module flashes to indicate the error code number.

Identify the error code by counting the flashes as follows:

1. The first digit is indicated by half-second flashes followed by half-second pauses.
2. A 2.5-second pause follows.
3. The second digit is then indicated by half-second flashes followed by half-second pauses.
4. A 5-second pause follows, then the cycle repeats.

The LED continuously displays codes until the fault is cleared, the outrigger control module is reset and no longer detects the fault, or idle timeout becomes active.

Since the outrigger control module only reports one error, only one code can be read from the LED per instance. If the error is cleared and another is present, it will then be presented.

LED ERROR CODES

EVERYTHING OK	ON
VEHICLE TILTED	1/1
OUTRIGGERS CANNOT BE MOVED!	1/2
OUTRIGGERS NOT HOME	2/2
NOT FULLY LEVEL	2/1
RELEASE OUTRIGGER DEMAND!	5/5
CHECK OUTRIGGER SUPPLY (P4-9)	5/2
CANNOT LEVEL : BAD TILT SENSOR	7/1
OUTRIGGERS MANUALLY CONTROLLED!	6/6
TESTING HWFS	7/8
B+ SUPPLY TOO LOW	5/1
STARTUP!	7/7
FAULT: BAD SLAVE MICRO	7/5
FAULT: BAD TILT SENSOR	7/1
FAULT: BAD HWFS	7/2
FAULT: P2-5 FAULTY	8/1
FAULT: P2-6 FAULTY	8/2
FAULT: P2-8 STUCK ON	8/3
FAULT: P2-8 ALWAYS ON	8/4
FAULT: P2-8 ALWAYS OFF	8/5
FAULT: HWFS STALLED!	7/6

60402AC

MidWestTech | Skyjack SJ8831 RT, SJ8841 RT Rough Terrain Scissor Lift Service Manual |... Order the manual at mid-west-tech.com >

Table 2.6 Torque Specifications

CARTRIDGE						
Torque	Size					
	8	38	58	10	12	16
Lb-ft (max)	20			25	35	50
Lb-in (max)	240			300	420	600
Nm (max)	27.12			33.9	47.46	67.8

COILS	
Torque	Size
	All coils
Lb-ftt (max)	4 to 5
Lb-in (max)	48 to 60
Nm (max)	5.42 to 6.78

SAE PLUGS								
Torque	Size							
	2	4	5	6	8	10	12	16
Lb-ft (max)	3	10	15		25		30	35
Lb-in (max)	36	120	180		300		360	420
Nm (max)	4.07	13.56	20.34		33.9		40.68	47.46

BOLTS		
Type of Bolt	Torque (ft-lb)	Torque (Nm)
Directional valve mounting bolts	2.33 (28-32 in-lb)	3.16 - 3.61
Wheel mounting bolts	140	189.8
Center drive sprocket mounting bolts	110 - 115 (242 Loctite)	149 -156
Hydraulic drive motor mounting bolts	120 (242 Loctite)	162
Positive battery post cable/fuse nut	7.5 (90 in-lb)	10.2

Newton-meter = Nm	Foot-Pound Force = ft-lb	Inch-Pound Force = in-lb

60022AG_RT

MidWestTech | Skyjack SJ8831 RT, SJ8841 RT Rough Terrain Scissor Lift Service Manual |... Order the manual at mid-west-tech.com >

Section 4
TROUBLESHOOTING INFORMATION

Table of Contents

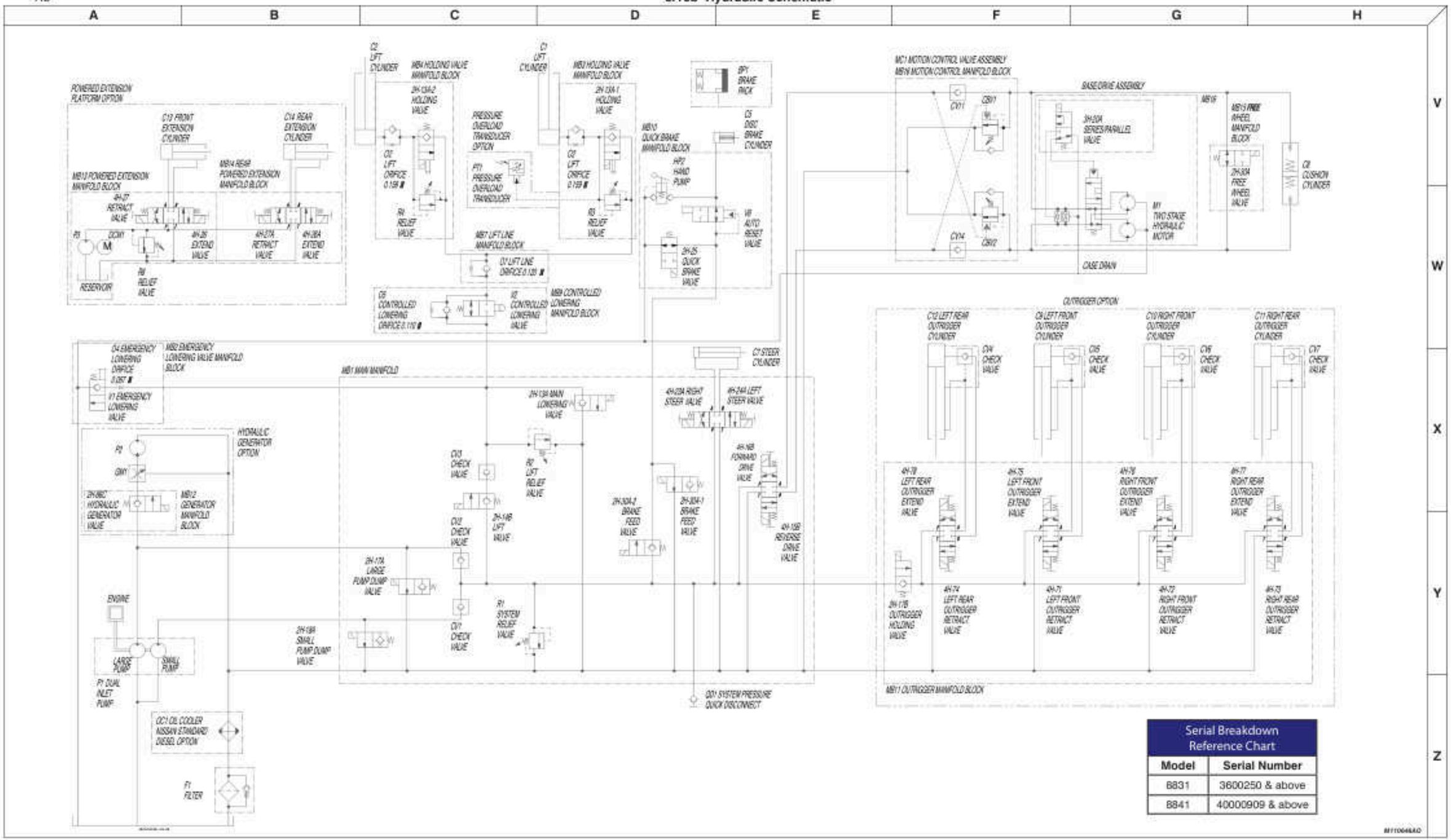
Introduction 95

Electrical System

4.1-1 All Controls Inoperative 96
4.1-2 No Power to Platform (ANSI/CSA) 96
4.1-3 All Functions Inoperative from Platform 96
4.1-4 Engine will Not Crank from Platform 97
4.1-5 Engine will Not Crank from Platform Controls (Additional for GM Dual Fuel) 97
4.1-6 Engine will Not Crank from Base Controls (GM dual fuel) 98
4.1-7 Engine will Not Crank from Base Controls (Kubota diesel) 98
4.1-8 Engine Cranks but Stops Cranking after a few seconds 98
4.1-9 Glow Plugs Inoperative from Engine Controls 99
4.1-10 Glow Plugs Inoperative from Platform (Additional) 99
4.1-11 Engine Cranks but will Not Start (Kubota diesel) 99
4.1-12 Engine Cranks but will Not Start (GM dual fuel) 100
4.1-13 Mid Throttle Inoperative (on demand) (GM Dual Fuel) 101
4.1-14 High Throttle Inoperative 102
4.1-15 High Throttle Inoperative (additional for GM dual fuel) 102
4.1-16 Drive and Steer Inoperative (Machines without outriggers option) 103
4.1-17 Drive and Steer Inoperative (machines with outriggers option) 103
4.1-18 Brakes will Not Release 104
4.1-19 Steer Right Inoperative 104
4.1-20 Steer Left Inoperative 105
4.1-21 Reverse Drive Inoperative 105
4.1-22 Forward Drive Inoperative 106
4.1-23 First Drive Speed and Steering Inoperative 107
4.1-24 Second Drive Speed Inoperative 107
4.1-25 Third Drive Speed Inoperative 108
4.1-26 High/Low Range Speed Inoperative 108
4.1-27 Up Circuit Inoperative from Platform or Base (machines without outriggers) 109
4.1-28 Up Circuit Inoperative from Base 110
4.1-29 Platform will Not Lift from Platform or Base Controls with Outriggers Retracted (lift operates correctly with outriggers extended) 110
4.1-30 Platform will Not Lift from Platform or Base Controls with Outriggers Extended 111
4.1-31 Down Circuit Inoperative from Platform or Base 112
4.1-32 Down Circuit Inoperative from Base 113
4.1-33 Powered Extension Platform Inoperative 113
4.1-34 Powered Extension Platform will Not Extend 113
4.1-35 Powered Extension Platform will Not Retract 114
4.1-36 Hydraulic Generator Inoperative 114
4.1-37 Hydraulic Generator will Not Shut Off from Generator Switch 115
4.1-38 All Outriggers Inoperative (Auto-level and manual) 115
4.1-39 All Outriggers Inoperative (Auto-level and manual from platform controls) 116
4.1-40 All Outriggers Inoperative (Base controls) 116
4.1-41 All Outriggers Inoperative (Auto-level)
A: Led Power Indicator Light at Outrigger Control Module (OCM1) Not on Constant 116

MidWestTech | Skyjack SJ8831 RT, SJ8841 RT Rough Terrain Scissor Lift Service Manual |... Order the manual at mid-west-tech.com >

3.10b Hydraulic Schematic



Serial Breakdown Reference Chart	
Model	**Serial Number**
8831	3600250 & above
8841	40000909 & above

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