

MISCELLANEOUS

- M01 - 70A DIODE
- M02 - RADIO REMOTE BATTERY CHARGER
- M03 - KUBOTA ENGINE TEMPERATURE SENDER
- M04 - GLOW PLUG TIMER
- M05 - KUBOTA ENGINE GLOW PLUG
- M06 - KUBOTA ENGINE ALTERNATOR
- M07 - KUBOTA ENGINE STARTER MOTOR
- M08 - 120 OHM RESISTOR
- M09 - MOTORCYCLE 12 VOLT BATTERY
- M10 - KUBOTA ENGINE MAIN 12 VOLT BATTERY
- M11 - KUBOTA ENGINE THROTTLE SOLENOID
- M12 - KUBOTA ENGINE RUN/STOP SOLENOID
- M13 - HIGH/LOW SPEED SOLENOID
- M14 - LOADSENSE SHUTOFF SOLENOID
- M15 - HORN
- M16 - LOADSENSE DUMP SOLENOID

RELAYS

- R01 - HORN
- R02 - HIGH / LOW SPEED & LOAD SENSE SHUT-OFF RELAY
- R03 - STROBE RELAY
- R04 - ENGINE SHUTDOWN RELAY (5-PIN)
- R05 - WORKLAMP RELAY
- R06 - STARTER MOTOR RELAY
- R07 - ECU BATTERY CONNECTION RELAY
- R08 - E-STOP RELAY (3 POLES)
- R09 - ECU BATTERY ISOLATION RELAY (5-PIN)
- R10 - ALTERNATOR WARNING RELAY
- R11 - ALTERNATOR RUN RELAY FOR ECU BATT BI-PASS
- R12 - IGNITION RELAY FOR ECU BATT BI-PASS

ENCLOSURE 'E' ENGINE ECU PLUG

PIN NO.	BLOCK	WIRE	FUNCTION
1	JP8(1)	0.5 Y	CAN-H
2	JP8(2)	0.5 GN	CAN-L
3	JP8(3)	0.5 R/W	+UE
4	JP8(4)	-	NOT CONNECTED
5	JP8(5)	0.5 BK/W	THROTTLE
6	JP8(6)	0.5 BU/Y	ENGINE STARTER MOTOR
7	JP8(7)	0.5 Y/R	LS SHUTOFF & HIGH/LOW SP.
8	JP8(8)	0.5 BN/R	LS DUMP
9	JP8(9)	0.5 GN/W	+UB
10	JP8(10)	0.5 GN/W	+UB
11	JP8(11)	0.85 BK	GROUND
12	JP8(12)	-	NOT CONNECTED
13	JP8(13)	0.5 W/BN	ENGINE SHUTDOWN
14	JP8(14)	0.5 BK/Y	HORN
15	JP8(15)	0.5 PU	NIGHT LIGHTS
16	JP8(16)	-	NOT CONNECTED

15-CORE WIRE KEY E-BOX to B-BOX

NO.	DESCRIPTION
1	Permanent ECU Battery Power
2	Permanent Main Battery Power
3	Emergency Stop 1
4	D+ Power
5	Emergency Stop 2
6	Reverse Gear Feed for Container Detection Sensor
7	Remote control power supply
8	Feed from trailer lighting for module clearance lamps
9	S-Plug Pin 5 feed PTO Pressure (INC) switch for Sunfab Dump also common to trailer lighting AUX
10	Used only for separately switched container detection circuit
11	NOT USED
12	NOT USED
13	Ground
14	CAN High
15	CAN Low

SWITCHES

S01	CHASSIS, FRONT E-STOP BUTTON
S02	START KEY ENCLOSURE E-STOP BUTTON
S03	PENDANT E-STOP BUTTON
S04	VOLTMETER TOGGLE E SWITCH
S05	ENGINE OIL PRESSURE SWITCH
S06	ENGINE WATER TEMPERATURE SWITCH
S07	WORKLAMPS BUTTON
S08	ENGINE START BUTTON
S09	HI / LOW SWITCH
S10	MODE SELECT SWITCH
S11	E-STOP CIRCUIT BYPASS PUSHBUTTON SWITCH
S12	FRONT STABILISER DOWN LIMIT SWITCH
S13	REAR STABILISER DOWN LIMIT SWITCH
S14	TRAILER PARK BRAKE SENSOR

KEY SWITCH

K30	PERMANENT BATTERY SUPPLY
K58	NOT CONNECTED
K16/54	IGNITION / ECU ON
K18	GLOW PLUGS
K17	GLOW PLUGS
K50a	STARTER MOTOR

FUSES (KEY SWITCH JUNCTION BOX)

FU01	CHASSIS, FRONT E-STOP BUTTON
FU02	10A WORKLAMPS, FRONT CHASSIS
FU03	7.5A HORN
FU04	4A LOAD SENSE SHUTOFF SOLENOID
FU05	5A HIGH / LOW SPEED SOLENOID
FU06	4A LOAD SENSE DUMP
FU07	4A ENGINE RUN/STOP HOLD SOLENOID
FU08	3A ALTERNATOR REGULATOR
FU09	7.5A PULL SOLENOID
FU10	4A FRONT CRANE ECU D+ AND SENSOR POWER
FU11	10A WORKLAMPS, FRONT CRANE
FU12	10A WORKLAMPS, REAR CRANE
FU13	3A VOLTMETER, MAIN BATTERY
FU14	4A DISPLAY POWER
FU15	3A REVERSE GEAR (PTO ONLY)
FU16	4A REAR CRANE ECU D+ AND SENSOR POWER
FU17	7.5A MODULE MARKER LAMPS
FU18	10A WORKLAMPS, REAR CRANE
FU19	5A RADIO RECEIVER POWER
FU20	3A E-STOP CIRCUIT FUSE
FU21	4A THROTTLE
FU22	7.5A ENGINE ECU UB
FU23	10A ECU BATTERY REVERSE POLARITY
FU24	3A MAIN BATTERY REVERSE POLARITY
FU25	10A ECU FRONT UE & UB POWER
FU26	3A REAR VOLTMETER, ECU BATTERY & E-stop circuit
FU27	10A ECU REAR UE & UB POWER
FU28	10A ECU POWER SUPPLY (BOOST CONVERTER)

LOCATION R (FRONT CRANE MODULE JUNCTION BOX)

FU-2A	REAR ECU UE PERMANENT POWER
FU-2A	REAR ECU ANALOGUE GROUNDS

LOCATION F (FRONT CRANE MODULE JUNCTION BOX)

FU-2A	FRONT ECU UE PERMANENT POWER
FU-2A	FRONT ECU ANALOGUE GROUNDS

CONNECTOR BLOCK CODE

BLOCK (NUMBER)	LOCATION	pin
eg C12/E		

COLOUR ABBREVIATION

RED	R
WHITE	W
PURPLE	PJ
YELLOW	Y
BROWN	BN
BLUE	BU
BLACK	BK
GREY	GY
GREEN	GN
PINK	PK
ORANGE	O

SENSORS

Z01	FRONT TOP ARM ANGLE SENSOR
Z02	FRONT BOTTOM ARM ANGLE SENSOR
Z03	FRONT BOTTOM ARM ANGLE SENSOR
Z04	REAR BOTTOM ARM ANGLE SENSOR
Z05	FRONT STABILISER ANGLE SENSOR
Z06	REAR STABILISER ANGLE SENSOR
Z07	FRONT TOP ARM CYLINDER PRESSURE SENSOR
Z08	REAR TOP ARM CYLINDER PRESSURE SENSOR
Z09	FRONT MAGNETIC COUNT SENSOR (STABILISER EXTENSION)
Z10	REAR MAGNETIC COUNT SENSOR (STABILISER EXTENSION)
Z11	FRONT MAGNETIC RESET SENSOR (STABILISER EXTENSION)
Z12	REAR MAGNETIC RESET SENSOR (STABILISER EXTENSION)
Z13	FRONT OPTICAL CONTAINER DETECTION SENSOR
Z14	FRONT MODULE CAMBER / ELEVATION ANGLE SENSOR
Z15	REAR MODULE CAMBER / ELEVATION ANGLE SENSOR
Z16	REAR BANDY LEG RETRACTED PROXIMITY SENSOR
Z17	FRONT BANDY LEG RETRACTED PROXIMITY SENSOR
Z18	REAR BANDY LEG EXTENDED PROXIMITY SENSOR
Z19	FRONT BANDY LEG EXTENDED PROXIMITY SENSOR

LAMPS

L01	WORKLAMP
L02	ENGINE GLOW PLUG LAMP (AMBER)
L03	E-STOP CIRCUIT LAMP (GREEN)
L04	SMARTLIFT WARNING LED RED
L05	CONTAINER POSITION SENSOR-ON LAMP
L06	FRONT BEACON STROBE (OPTIONAL)
L07	FRONT BEACON STROBE (OPTIONAL)
L08	REAR BEACON STROBE (OPTIONAL)
L09	CLEARANCE LAMP (CRANE)

B-Box Plug Numbers

NO.	DESCRIPTION
JP1	Diagnostic Plug
JP2	Volt Meter Switch
JP3	Volt Meter
JP4	Display
JP5	Battery Charger
JP6	Reverse Beeper
JP7	Lift Axle
JP8	PTO
JP9	EMAX
JP10	Steering Axle
JP11	Lift Axle
JP12	ABS
JP13	15 Core Cable
JP14	Remote
JP15	

ADDENDUM

D	24/12/2016	Add: missing wire B7 desc.	ricbro
C	14/08/2018	Updated Grid References	ricbro
B	18/10/2017	Rev 'K' PCB	mikpar
A	8/03/2016	first rev full PCB	geode

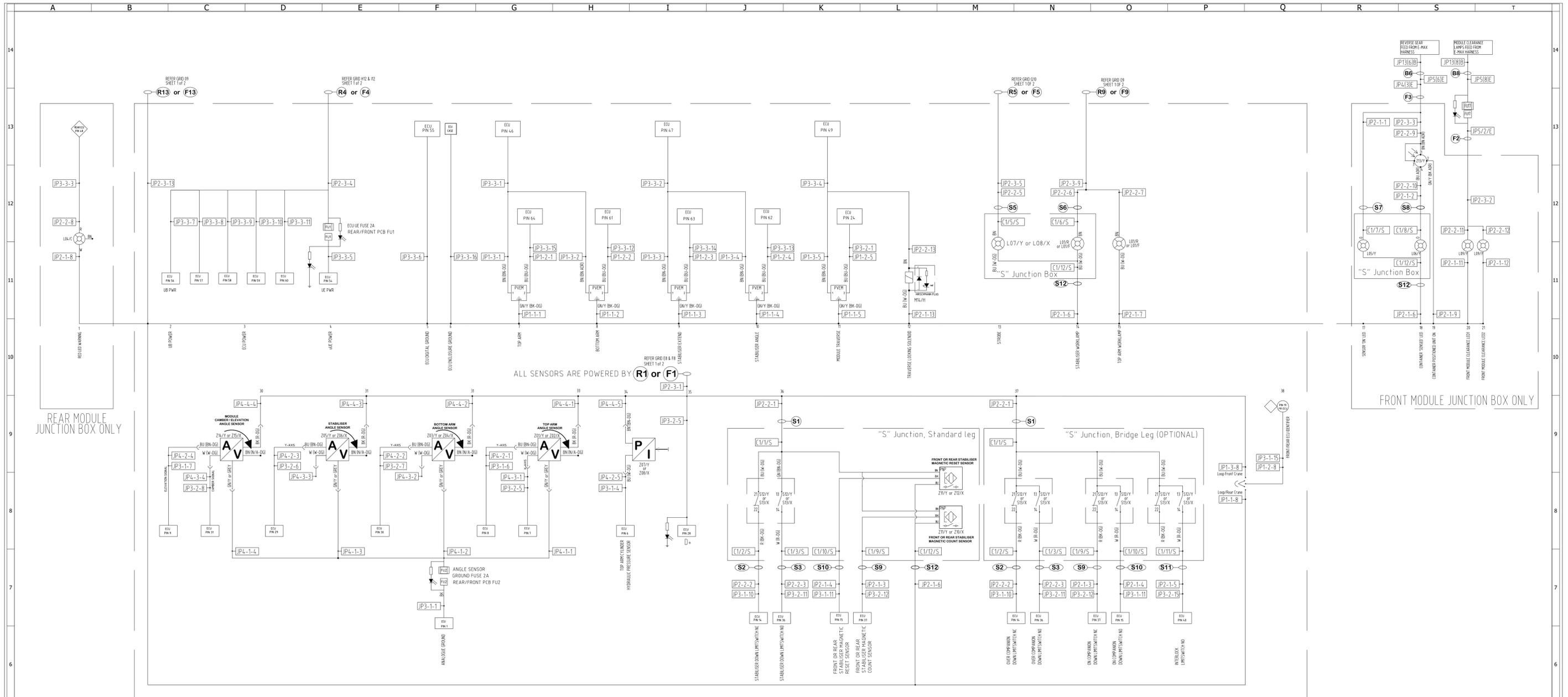
Title: SB362U SMARTlift full PCB + ECU P/S Part: EL-43883 Rev: D

Notes: SHEET 1 OF 2: Full PCB Version ('B'- 'E'- 'P'- 'F' & 'R' boxes) Filename: EL-43883.dwg

Drawn: geode 8/3/2016 Mass: kg

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Default Tolerances: Machining: Size ±0.5, Surface N8 Angle ±0.5° Profiling: Size ±2, Position ±2 Angle ±2° Welding: Position ±3, Quality C



FRONT AND REAR MODULE JUNCTION BOXES

S BOX Standard Leg 12 CORE WIRING KEY	
NO.	DESCRIPTION
1	Power Supply - Leg Count, Leg Reset, Stabiliser Limit Switch
2	Stabiliser Limit Switch "Normally Closed"
3	Stabiliser Limit Switch "Normally Open"
4	Spare
5	Strobe Power
6	Power - WorkLamp
7	Container Detection Sensor Lamp "ON" LED
8	Container Detection Sensor Lamp "signal-Container Sensed" LED
9	Leg Sensor - Signal "Count"
10	Leg Sensor - Signal "Reset"
11	Spare
12	Earth

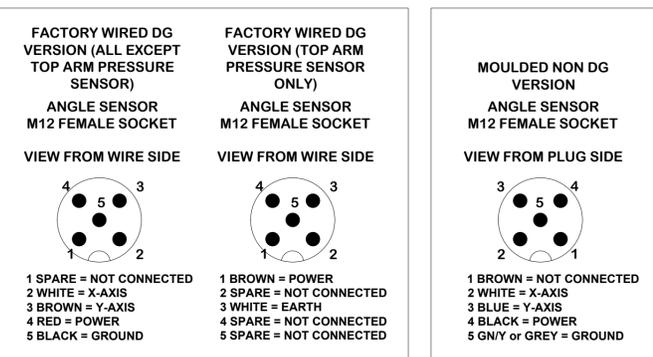
S BOX Bridge Leg 12 CORE WIRING KEY	
NO.	DESCRIPTION
1	Power Supply - Interlock Lmt SW, On Companion Lmt SW, Over Companion Lmt SW
2	Over Companion Lmt SW - "NC"
3	Over Companion Lmt SW - "NO"
4	Spare
5	Strobe Power
6	Power - WorkLamp
7	Container Detection Sensor Lamp "ON" LED
8	Container Detection Sensor Lamp "signal-Container Sensed" LED
9	On Companion Lmt SW - "NC"
10	On Companion Lmt SW - "NO"
11	Interlock Lmt SW "NO"
12	Earth

CONNECTOR BLOCK CODE	
BLOCK (NUMBER) / LOCATION	DESCRIPTION
COLOUR	ABBREVIATION
RED	R
WHITE	W
PURPLE	PU
YELLOW	Y
BROWN	BN
BLUE	BU
BLACK	BK
GREY	GY
GREEN	GN
PINK	PK
ORANGE	O

LAMPS	
CODE	DESCRIPTION
L01	WORKLAMP
L02	ENGINE GLOW PLUG LAMP (AMBER)
L03	E-STOP CIRCUIT LAMP (GREEN)
L04	SMARTLIFT WARNING LED RED
L05	CONTAINER POSITION SENSOR-ON LAMP
L06	CONTAINER POSITION LAMP
L07	FRONT BEACON STROBE (OPTIONAL)
L08	REAR BEACON STROBE (OPTIONAL)
L09	CLEARANCE LAMP (CRANE)

FRONT CRANE 15-CORE WIRE KEY	
NO.	DESCRIPTION
1	System 'ON' Power (D+ Power)
2	Front Module Clearance Lamps Power
3	Container Detection Sensor Power
4	Permanent ECU Battery Power (UE and UB Power)
5	Strobe Power
6	NORMALLY NOT USED - ONLY PTO or Gooseneck - Container 'Detected' LED Power
7	Kubota Oil Pressure Warning or Truck Mount PTO ONLY - Front E-Stop Return
8	Kubota Water Temperature Warning or Truck Mount PTO ONLY - Front E-Stop Feed
9	Worklamps Power
10	NORMALLY NOT USED - ONLY PTO - LoadSense Dump if Left Hand Lift
11	NOT USED
12	NOT USED
13	Ground
14	CAN High
15	CAN Low

REAR CRANE 15-CORE WIRE KEY	
NO.	DESCRIPTION
1	System 'ON' Power (D+ Power)
2	NOT USED
3	NORMALLY NOT USED - ONLY GOOSENECK - Container Detection Sensor Power if sensor is mounted on rear crane
4	Permanent ECU Battery Power (UE and UB Power)
5	Strobe Power
6	NORMALLY NOT USED - ONLY GOOSENECK - Container 'Detected' LED when sensor is mounted on rear crane
7	Kubota Alternator not charging warning
8	Trailer Park Brake Signal (optional)
9	Worklamps Power
10	NORMALLY NOT USED - ONLY PTO - LoadSense Dump if Right Hand Lift
11	CAN High
12	CAN Low
13	Ground
14	CAN High
15	CAN Low



Title: SB362U SMARTlift full PCB		Part: EL-43883	Rev: C
Notes: SHEET 2 OF 2: Full PCB Version ('B'-'E'-'P'-'F' & 'R' boxes)		Filename: EL-43883.dwg	
		Drawn: geode	8/3/2016
Default Tolerances: Machining: Size ±0.5, Surface N8 Angle ±0.5° Profiling: Size ±2, Position ±2 Angle ±2° Welding: Position ±3, Quality C		Mass: kg	A1