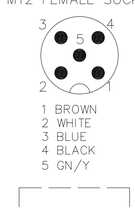
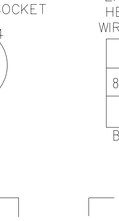
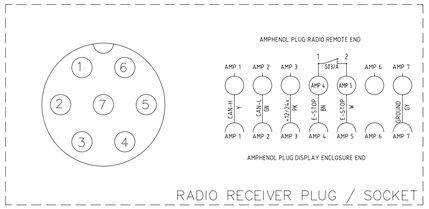
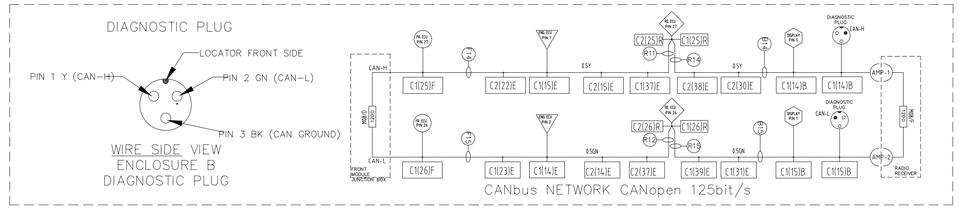
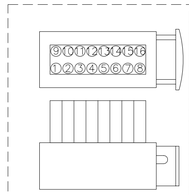




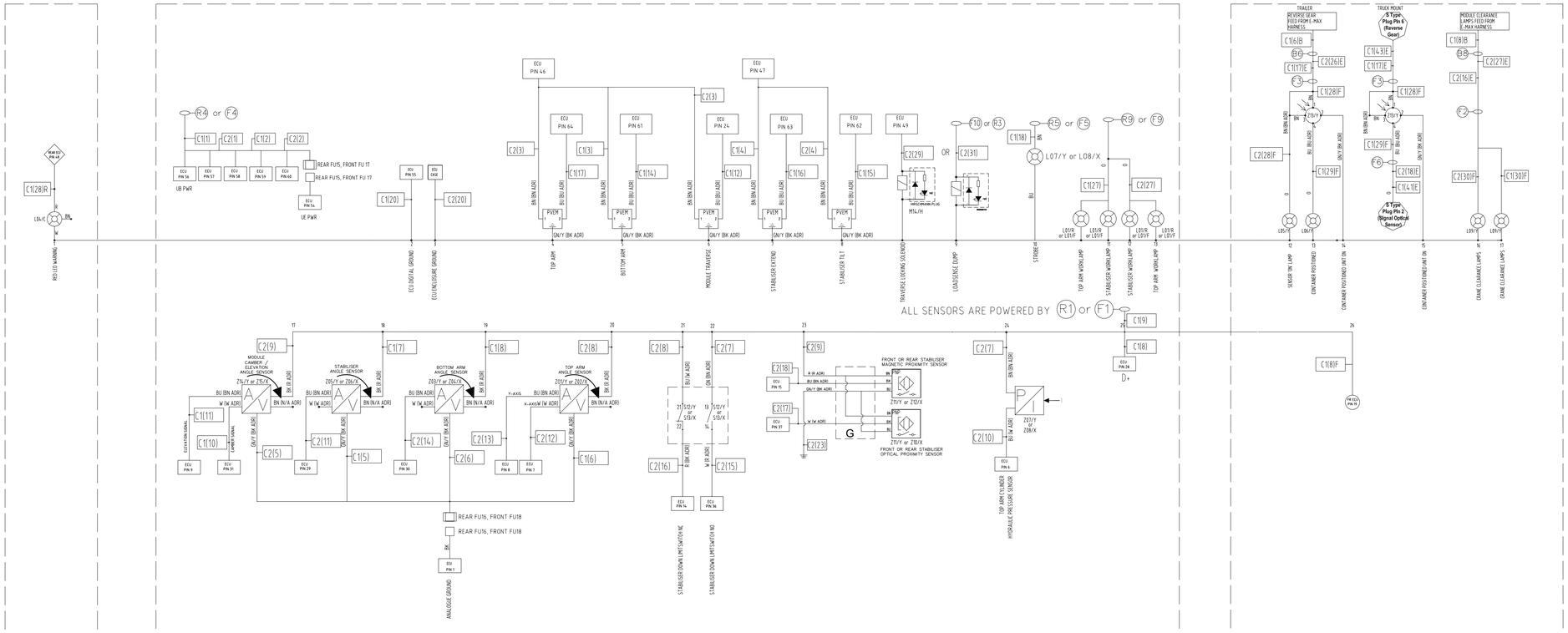




ENCLOSURE 'E' ENGINE ECU PLUG



PIN NO.	BLOCK	WIRE	FUNCTION
ECU 1	C1(22)E	0.5 Y	CAN-H
ECU 2	C1(21)E	0.5 GN	CAN-L
ECU 3	C1(20)E	0.5 R/W	+UE
ECU 4	-	-	NOT CONNECTED
ECU 5	C2(18)E	0.5 BK/W	THROTTLE
ECU 6	C1(16)E	0.5 BU/Y	ENGINE STARTER MOTOR
ECU 7	C1(18)E	0.5 Y/R	LS SHUTOFF & HIGH/LOW SP.
ECU 8	C1(13)E	0.5 BN/R	LS DUMP
ECU 9	C1(19)E	0.5 GN/W	+UB
ECU 10	C2(19)E	0.5 GN/W	+UB
ECU 11	C1(3)E	0.85 BK	GROUND
ECU 12	-	-	NOT CONNECTED
ECU 13	C2(12)E	0.5 W/BN	ENGINE SHUTDOWN
ECU 14	C2(17)E	0.5 BK/Y	HORN
ECU 15	C1(17)E	0.5 PU	NIGHT LIGHTS
ECU 16	-	-	NOT CONNECTED



CONNECTOR BLOCK CODE

BLOCK (NUMBER) / LOCATION
___ (_____) / ___ eg C1(2)E

FUS FUSE OUTPUT

COLOUR **ABBREVIATION**

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

F2 = WIRE NO. 2 (OF 15) TO FRONT CRANE
= FRONT ECU PLUG PIN
= REAR ECU PLUG PIN
= ENGINE ECU PLUG PIN
= DISPLAY PLUG PIN
= FRONT OR REAR ECU PLUG PIN

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 - CONTAINER POSITION LAMP
L07 - FRONT BEACON STROBE (OPTIONAL)
L08 - REAR BEACON STROBE (OPTIONAL)
L09 - CLEARANCE LAMP (CRANE)

SENSORS

Z01--------- FRONT TOP ARM ANGLE SENSOR
Z02--------- REAR TOP 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 OPTICAL SENSOR (STABILISER EXTENSION)
Z10--------- REAR OPTICAL SENSOR (STABILISER EXTENSION)
Z11--------- FRONT MAGNETIC SENSOR (STABILISER EXTENSION)
Z12--------- REAR MAGNETIC 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

SWITCHES

S01--------- CHASSIS, FRONT E-STOP BUTTON
S02--------- START KEY ENCLOSURE E-STOP BUTTON
S03--------- PENDANT E-STOP BUTTON
S04--------- VOLTMETER TOGGLE SWITCH
S05--------- ENGINE OIL PRESSURE SWITCH
S06--------- ENGINE WATER TEMPERATURE SWITCH
S07--------- WORLAMPS 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
K15/54---- IGNITION / ECU ON
K19--------- GLOW PLUGS
K17--------- GLOW PLUGS
K50a------ STARTER MOTOR

LOCATION

A = PENDANT REMOTE CONTROL
B = REAR DISPLAY ENCLOSURE
E = START KEY JUNCTION BOX
F = FRONT CRANE JUNCTION BOX
G = STABILISER EXTENSION SENSOR J/B
H = HIGH/LOW SPEED VALVE BLOCK
I = TRAILER PLUG J/B
J = ENGINE FRAME ECU BATTERY BOX
L = ENGINE
M = TOP LIFT FRAME MAIN J/B
P = RADIO RECEIVER ENCLOSURE
R = REAR CRANE JUNCTION BOX
U = TOP LIFT FRAME WARNING LIGHT J/B
W = TOP LIFT FRAME
X = REAR CRANE MODULE
Y = FRONT CRANE MODULE
Z = TRAILER CHASSIS

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
M17 - VOLTMETER

RELAYS

R01 - E-STOP RELAY (DUELCO 3 POLE)
R02 - HORN RELAY
R03 - THROTTLE RELAY
R04 - WORKLAMP RELAY
R05 - STROBE RELAY

FUSES (KEY SWITCH JUNCTION BOX)

LOCATION E

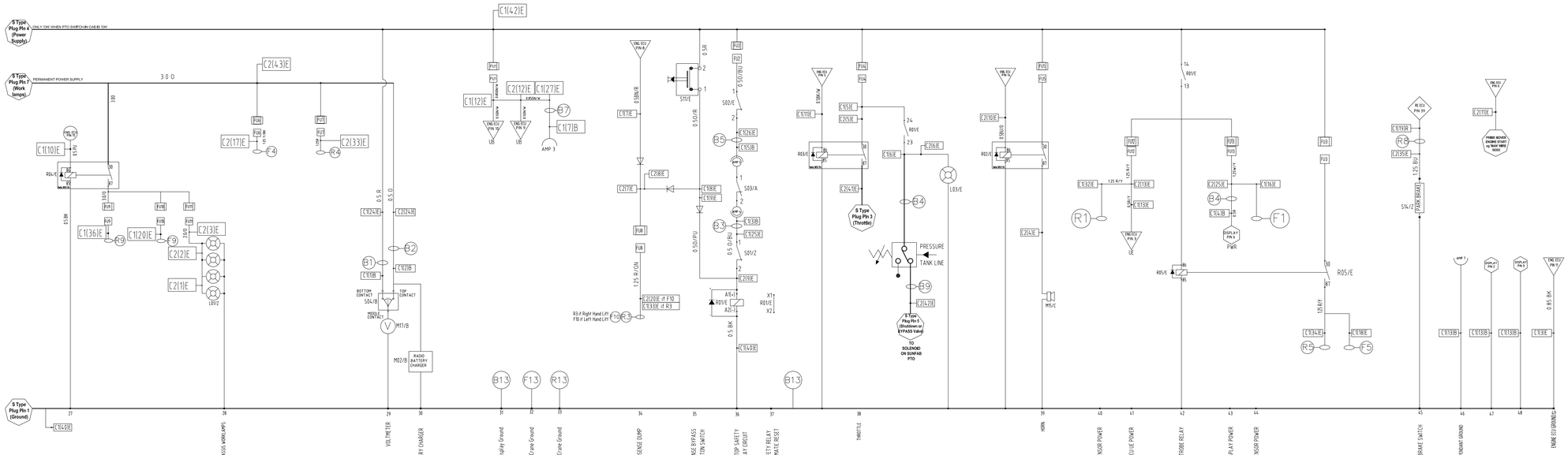
FU01 - 7.5A	ENGINE ECU POWER UB+RADIO POWER
FU02 - 3A	E-STOP CIRCUIT FUSE
FU03 - 10A	STROBE
FU04 - 5A	THROTTLE + PTO BYPASS
FU05 - 7.5A	HORN
FU06 - 15A	FRONT ECU & UB & UE POWER
FU07 - 15A	REAR ECU UB & UE POWER
FU08 - 4A	LOAD SENSE DUMP
FU09 - 10A	REAR CRANE WORKLAMPS
FU10 - 10A	FRONT CRANE WORKLAMPS
FU11 - 15A	CHASSIS WORKLAMPS
FU12 - 4A	ENGINE ECU D+ & UE, D+PWR REAR, SENSOR POWER REAR
FU13 - 4A	D+PWR FRONT, SENSOR POWER FRONT

LOCATION C

FU15 - 2A	REAR ECU UE PERMANENT POWER
FU16 - 2A	REAR ECU ANALOGUE GROUNDS

LOCATION D

FU17 - 2A	FRONT ECU UE PERMANENT POWER
FU18 - 2A	FRONT ECU ANALOGUE GROUNDS



note; in enclosure E for double deck blocks C2 is upper level, C1 is lower level

H	02/11/2007	Tank Line Pressure Switch added	ricbro
G	29/02/2007	Container Detection Sensor - Truck Mount & Trailer both now shown	S.J.Morgan
¹GENTITLE-LL		Pin 63 corrected to Pin 49 for Traverse locking solenoid	S.J.Morgan

Title	SB 200,300,330 SMARTlift 2.0 PTO	Part	EL-37775
		Rev	H
Notes	Generic Wiring Diagram-all options shown	Filename	U:\Projects\SMARTlift\Wiring\WDMG REV E.dwg
STEELBRO	KLAUS STEELBRO New Zealand Ltd 1-31 Treffers Rd, Christchurch New Zealand	Default Tolerances Machining: Size ±0.1, Surface N8 Profiling: Size ±2, Position ±2 Welding: Position ±3, Quality C (C) STEELBRO New Zealand 2000	Drawn ricbro 13/04/2006 Mass kg A1