Engineering Release Number (ERN)	Location	Change description	Standard Delivered	Made	Document Release Status
D-15102-07		SEE ECN			RELEASED
					Revision 120929 / Modification count

EXTERNAL STOP (USE SHIELDED CABLE FOR LONG DISTANCES)

OPTIONAL

OPTIONAL REMOTE PANELS

I-RP #3/4/5 or INTELIVISION

I-RP #2

I-RP #1

MAX. 200/100 METERS 120 OHM IMPEDANCE TWISTED PAIR/SCREEN

ALT. 10M OR SINGLE I-RP MAX. 15 METERS

POWER 6-35 V.d.c.

YARD CONNECTIONS

DIGITAL/BINARY INPUTS ACTIVATED BY EXTERNAL SWITCHES

(FUNCTIONS ARE BY (-) ACTIVATED)

INPUT		AUX	EME	COMB	PROP.
B6	SD OVERSPEED	X	X	SEE A	X
B7	AUX-STOP	X	X	X	NA
B8	START BLOCKING	X	X	X	X
B9	ACKN. (FAULT RESET)	X	X	X	X
B10	BLACKOUT START	X	X	X	SEE B
B11	REMOTE START	X	X	X	X
B12	REMOTE STOP	X	X	X	X
B13	SPEED UP	X	X	X	NA
B14	SPEED DOWN	X	X	X	NA

A= HARBOUR MODE
B= BACKUP SPEED
NA= NOT APPLICABLE FOR YARD, INTERNAL FUNCTION

OPTIONAL AUX STOP

NOTE: This external stop will be overrided in EMS mode
One Stop-sw then R1 = 10k Ohms ±1% 0.25W
Two Stop-sw then R1 R2 = 10k Ohms +1% 0.25W
Note: SDU 55 HW jumper must be set!
Note: SDU 55 BW trigg level: +22kOhms
Note: Use shielded cables for long distances

SYSTEM CONNECTION BOX (OPENED VIEW)

HARBOUR MODE (NO OVERRIDE IND.)
LOCAL MODE INDICATION
DISCONNECT GENBREAKER
EMS COMMUNICATION FAILURE
START FAILURE
HORN
COMMON SHUTDOWN
COMMON ALARM
READY TO TAKE LOAD / DERATE ALARM
READY TO START
ENGINE RUNNING
LOAD SHARING NOT USED
CLUTCH CONNECT NOT USED
SAME WIRE! HARBOUR MODE(COMB) "SD OVERSPEED EQUIPMENT"
NOT USED
NOT USED

DIAGNOSTIC 6 POLE MALE CONNECTOR

VOLVO PENTA SHUTDOWN UNIT

BUZZER

JUMPER SETTING

△ INDIVIDUAL INPUTS HAS JUMPER SETTING & HARDWARE
△ X1-INTERNAL FUNCTION, NOT RE-CONFIGURABLE
△ XX= INTERNAL FUNCTION, NOT FOR YARD
△ XX-XX= MAXIMUM SWITCHING 24VDC, 6A A RES./IND.
△ S5 CHANNEL MUST BE ENABLED BY HW JUMPER INSIDE SHUTDOWN UNIT

① = PROP. ENGINE ONLY
② = AUX/COMBINED/PROP (NOT EME)
③ = COMBINED ONLY
④ = AUX/COMBINED/EME (NOT PROP)

VOLVO PENTA D13 ENGINE

FOR PINOUT SEE WIRING DIAGRAM
ELECTRICAL STARTER SYSTEM 21556256
AIR STARTER SYSTEM 21556256
EL AND AIR STARTER SYSTEM 21556256

EMS 2.2
CON. B
CON. A
POWER MODULE (PM)

IGNITION KEY CONNECTION (NOT SUPPLIED BY VOLVO PENTA)

△ CUT JUMPER IN TERMINAL BLOCK X19 BETWEEN +15 AND 11

CONNECTOR A — BUS INTERFACE
CONNECTOR B — SHUTDOWN SIGNALS

8 POLE PLUG BUS CONNECTOR A
8 POLE PLUG BUS CONNECTOR B

CONNECTOR B
PIN SIGNAL
1 65 SD OVERSPEED SENSOR-
2 66 SD OVERSPEED SENSOR+
3 2 BAT -
4 1 PM SUPPLY +
5 82 SD RELAY
6 S1 SD COOLANT TEMP
7 S2 SD GEAR OIL PRESSURE
8 S3 SD OIL PRESSURE ENGINE

CONNECTOR A
PIN SIGNAL
1 KA CAN/J1939 H
2 LA CAN/J1939 L
3 2 BAT -
4 1 PM SUPPLY +
5 +15 IGNITION
6 BT AUX. STOP INDICATION
7 DA J1708/J1587A
8 EA J1708/J1587B

DIAGNOSTIC 6 POLE MALE CONNECTOR

PIN	SIGNAL
1	PM SUPPLY +
2	J1708/J1587A
3	PM SUPPLY -
5	J1708/J1587A

TERMINAL	COMMENTS
1	REDUNDANT POWER SUPPLY FROM PM +
2	REDUNDANT POWER SUPPLY FROM PM -
S1	SD, COOLANT TEMP
S2	SD, GEAR OIL PRESSURE
S3	SD, OIL PRESSURE
S4	SD, SPARE (DESIGNED FOR FUEL PRESS)
S5	SD, OPTIONAL AUX. STOP WITH B.W. DET.
56	SD, SPARE
65	SD, OVERSPEED SENDER
66	SD, OVERSPEED SENDER
HZ	SD, RELAY / CUT-OFF VALVE
KA	CAN H, J1939 DATA LINK EMS-MCU
LA	CAN L, J1939 DATA LINK EMS-MCU
DA	J1708B, J1587 DIAGNOSE BUS
EA	J1708A, J1587 DIAGNOSE BUS
+15	IGNITION ON, 15+
BUZ	HORN
SR	SD, RESET CONTROL SWITCH INPUT
OR	SD, OVERRIDE CONTROL SWITCH INPUT
SF	SD, SDU SYSTEM FAILURE (15V DEFAULT)
SL	SD, OVERRIDE LAMP OUTPUT
7	SD, ALARM FOR S1, HIZ DEFAULT
8	SD, ALARM FOR S2, HIZ DEFAULT
9	SD, ALARM FOR S3, HIZ DEFAULT
10	SD, ALARM FOR S4, HIZ DEFAULT
11	SD, ALARM FOR S5, HIZ DEFAULT
12	SD, ALARM FOR S6, HIZ DEFAULT
0S	SD, ALARM OVERSPEED, HIZ DEFAULT
A6-A8	SPARE ANALOGUE INPUT, CONFIG. IN SOFTW.
B6	EXT. DIGITAL INPUT, SEE TABLE
B7	EXT. DIGITAL INPUT, SEE TABLE
B8	EXT. DIGITAL INPUT, SEE TABLE
B9	EXT. DIGITAL INPUT, SEE TABLE
B10	EXT. DIGITAL INPUT, SEE TABLE
B11	EXT. DIGITAL INPUT, SEE TABLE
B12	EXT. DIGITAL INPUT, SEE TABLE
B13	EXT. DIGITAL INPUT, SEE TABLE
B14	EXT. DIGITAL INPUT, SEE TABLE
BL	BACKLIGHT FOR I-RP 100% INTENSITY
X1	RELAY, SD OVERRIDE (INTERNAL FUNC.)
X2	RELAY, LOCAL MODE INDICATION
X3	RELAY, DISCONNECT GENBREAKER
X4	RELAY, EMS COMMUNICATION FAILURE
X5	RELAY, START FAILURE
X6	RELAY, HORN (EXTERNAL BUZZER)
X7	RELAY, COMMON SHUTDOWN
X8	RELAY, COMMON ALARM
X9	RELAY, READY TO TAKE LOAD, DERATE AL.
X10	RELAY, READY TO START
X11	RELAY, RUNNING INDICATION, LOAD SHARE
X12	RELAY, CLUTCH CONNECT
X13	RELAY, SPARE RELAY FUNCTION
X14	RELAY, SD OR/HRB MODE (INTER. FUNC.)
X15	RELAY, SPARE RELAY (NOT CONNECTED)
X16	RELAY, SPARE RELAY (NOT CONNECTED)
X19	TERMINAL BLOCK MONITOR BOX
⏚	GROUND TO HULL

TWISTED PAIR 30 TURNS/M

2= OPTIONAL 8 POLE CABLE AVAILABLE IN FIXED LENGHTS
11m P/N 874388
9m P/N 874387
7m P/N 874386
5m P/N 874179
3m P/N 874414

PIN	AREA	PAIR TWIN
1	0,75	
2	0,75	
3	2,5	
4	2,5	
5	2,5	
6	0,75	
T	0,75	
8	0,75	

ACTUATORS
STANDARD ALARM AND ENGINE SENDERS
APPLICATION SPECIFIC ALARM AND ENGINE SENDERS
SHUTDOWN SWITCHES/SENDER

8 POLE BUS CONNECTOR B — SHUTDOWN SIGNALS
8 POLE BUS CONNECTOR A — BUS INTERFACE

EXTERNAL ENGINE STOP
OPTIONAL START
SECONDARY SUPPLY (2X MIN.70MM2 CABLE FOR SHORTEST)
ALTERNATOR
BURST/SURGE PROTECTION
JUNCTION BOX - AIR STARTER OPTION
FUSE 80A SLOW
BACK-UP BATTERY
START BATTERY

PROSIT PRODUCTION TOOL NOTES
BUS CONNECTOR A
PROSIT
PIN 1 8 4 5 3
J1708 J1587
× PIN 5 (+15) MUST NOT BE CONNECTED

OPTIONAL CABLE 10m 2x0,75mm2 P/N 3849677
OPTIONAL CABLE (NOT SUPPLIED BY VOLVO PENTA) 2,5mm2

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SYMBOLS DESIGNATIONS AND GENERAL DRAWING METHODS STD 101-0005 AND STD 1603,183

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VOLVO PENTA

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