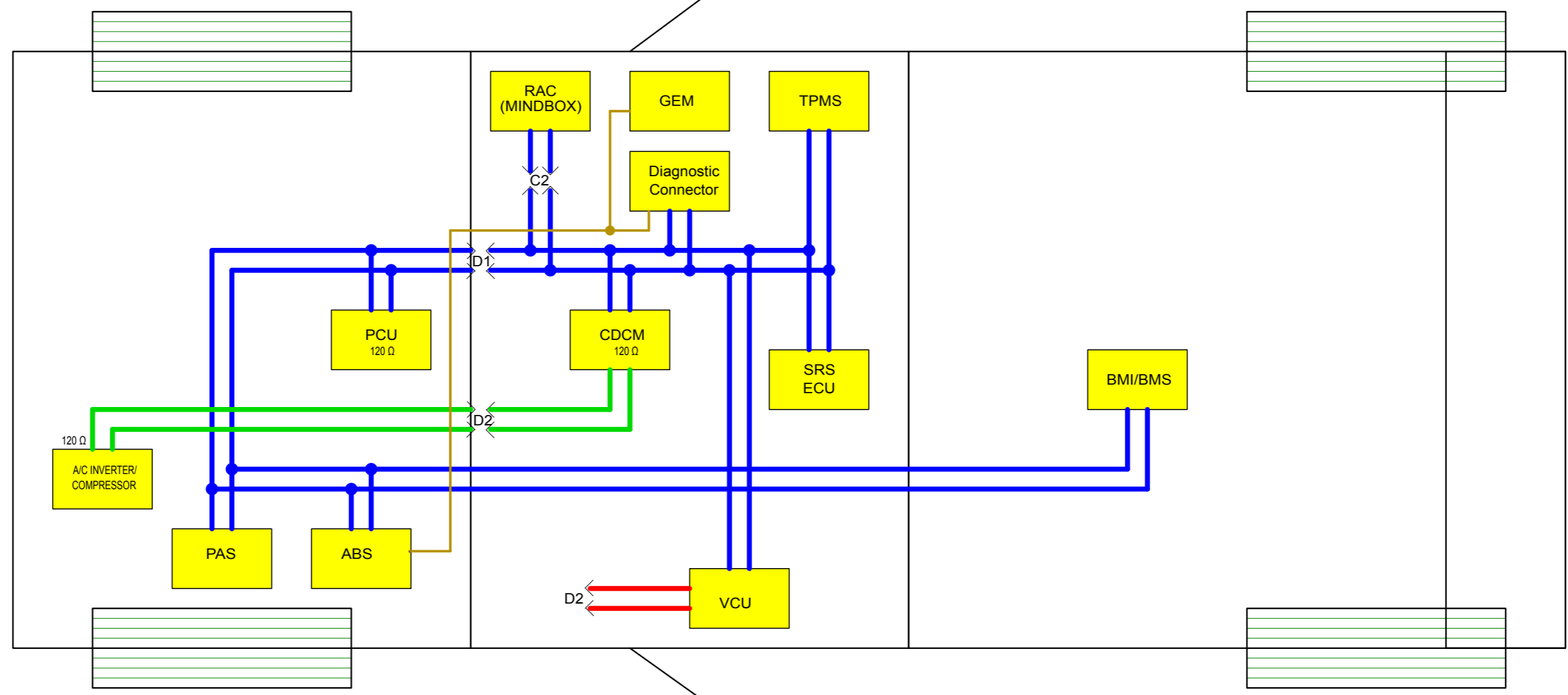
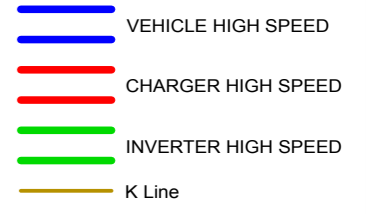


OVERVIEW



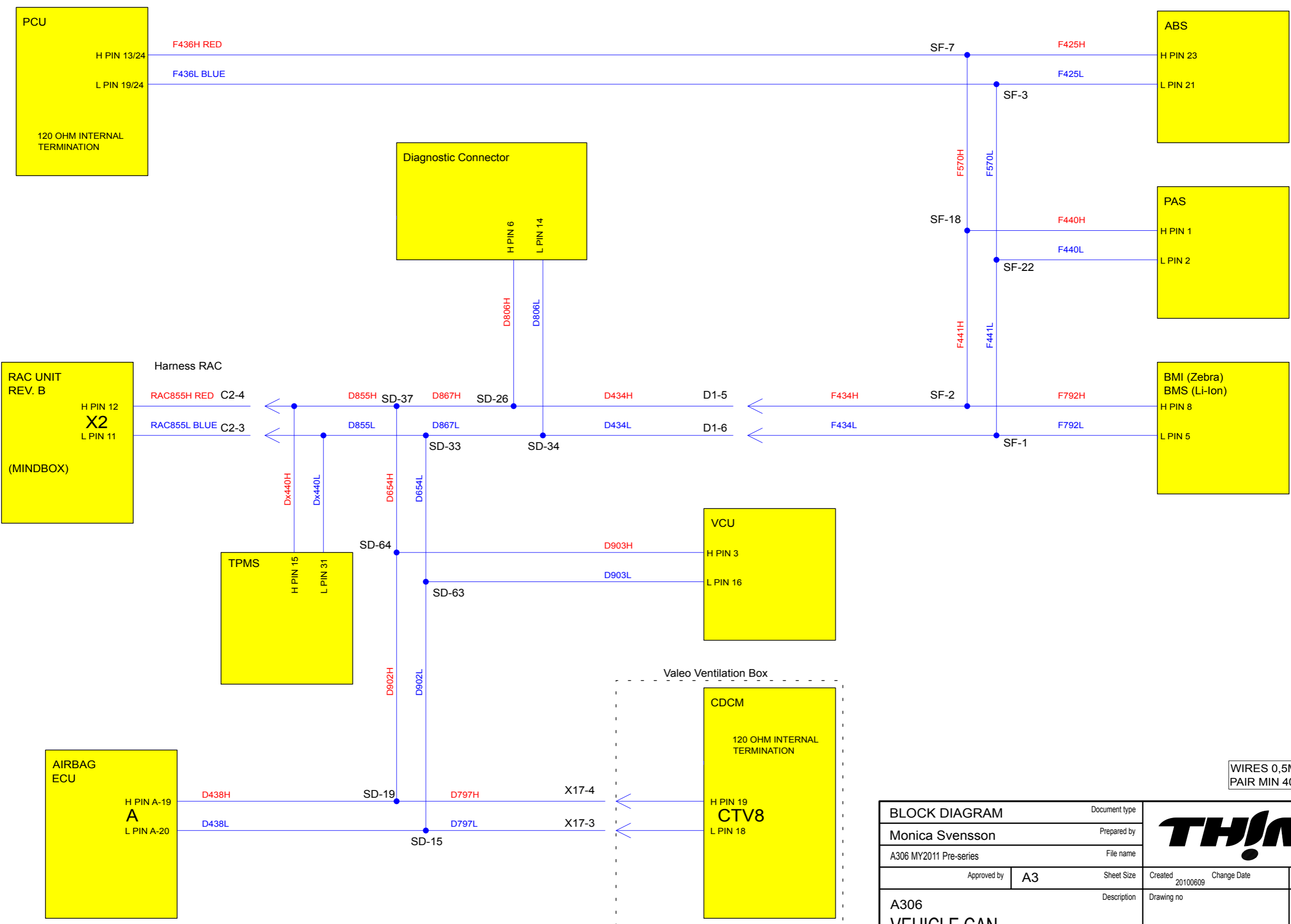
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- ABRIVATION:**
- ABS Anti Brake System
 - BMI Battery Module Interface
 - BMS Battery Module System
 - CDCM Climate and Demist Control Module
 - GEM Generic Electronic Modul
 - PAS Power Angle Steering
 - PCU Power Control Unit
 - RAC Remote Access Control
 - SRS Safety Restraint System
 - TPMS Tire Pressure Monitoring System
 - VCU Vehicle Control Unit

BLOCK DIAGRAM		Document type			
Monica Svensson		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A3	Sheet Size	Created 09/06/2010	Change Date	Page 1 of 4
A306		Description	Drawing no		Status
CAN SYSTEM TOPOLOGY					

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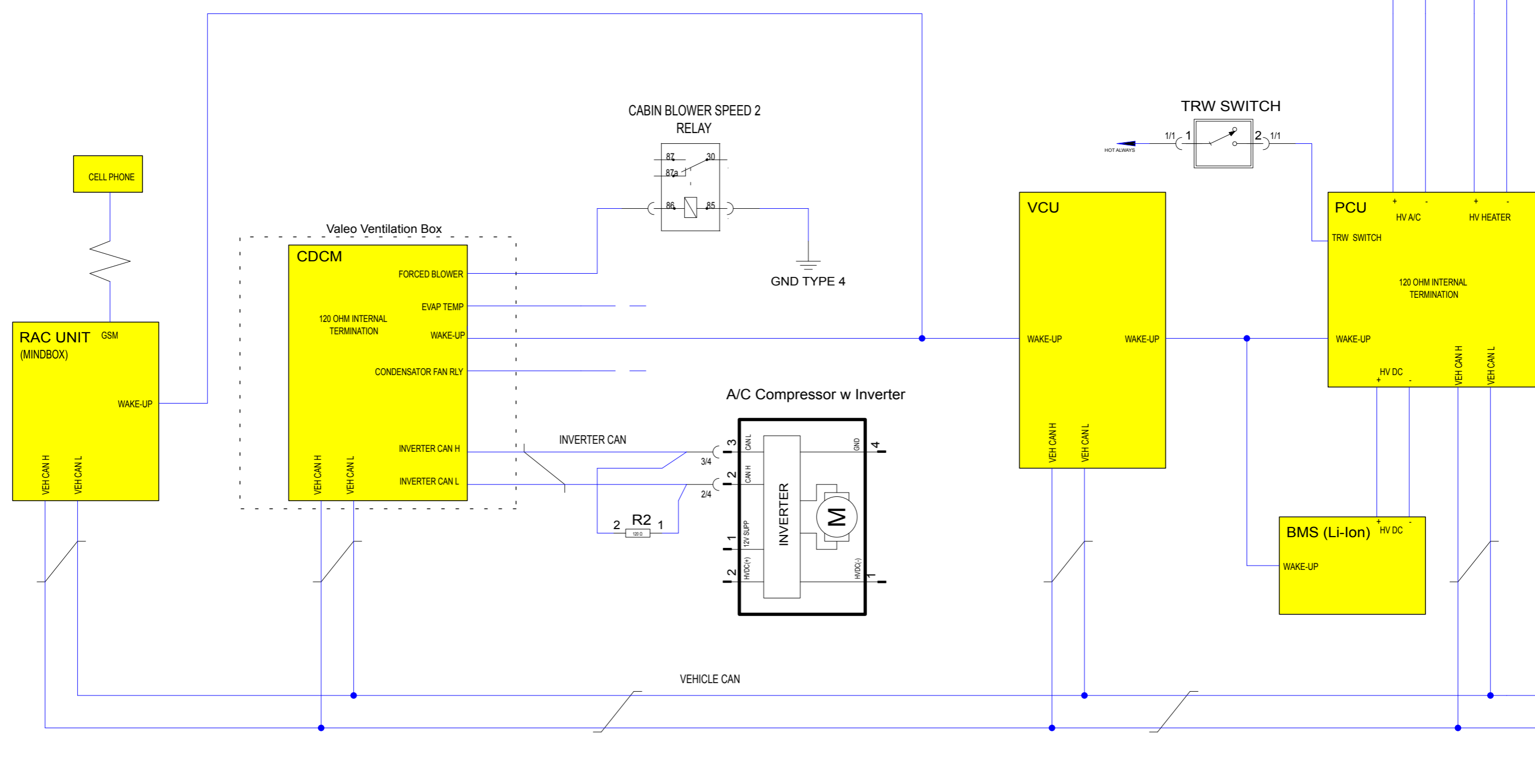


WIRES 0,5MM2 TWISTED
PAIR MIN 40 TURN/M

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msv

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Monica Svensson		Prepared by	
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A306 VEHICLE CAN		Description	Page 2 of 4 Status

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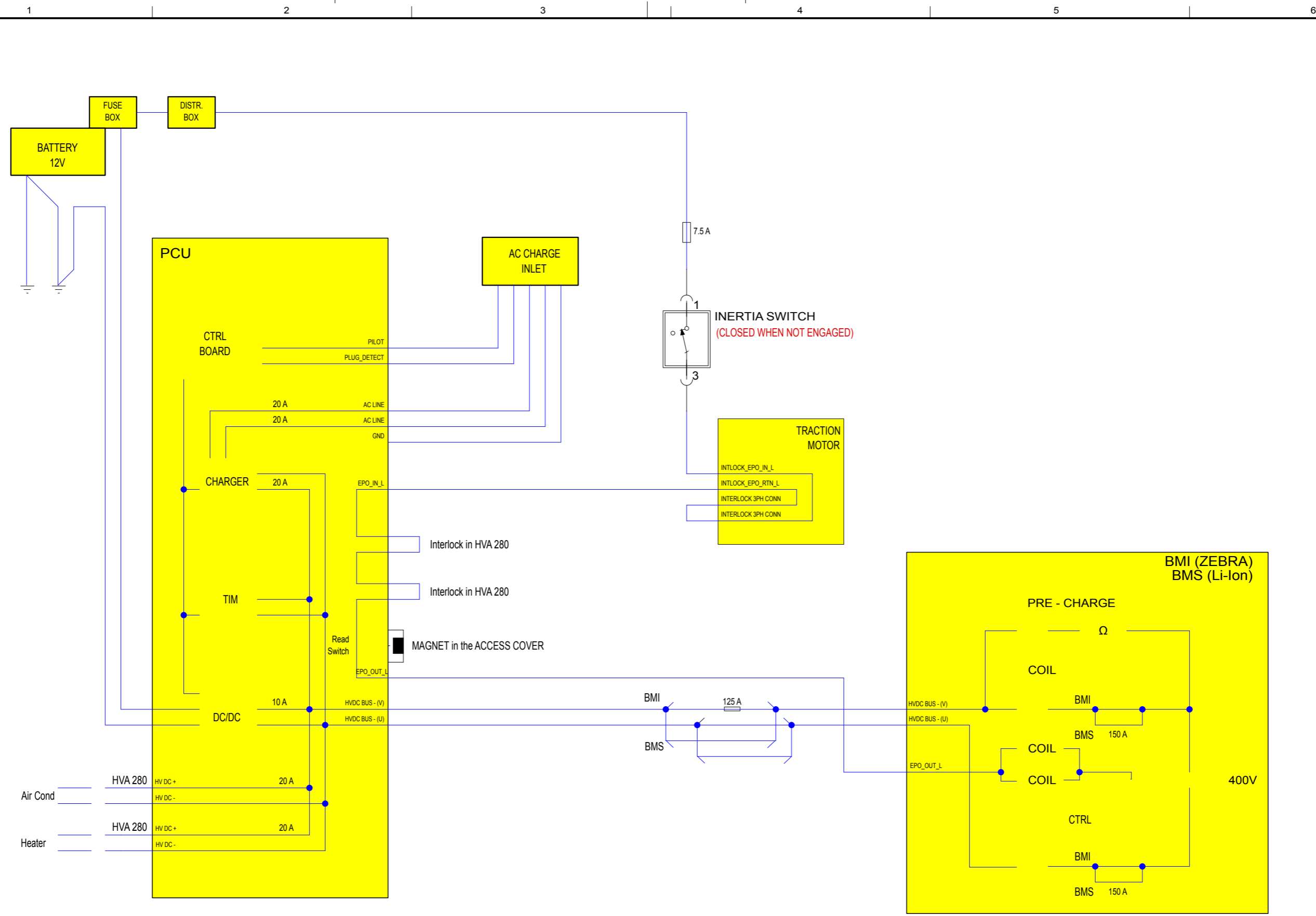


WIRES 0,5MM2 TWISTED PAIR MIN 40 TURN/M

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Monica Svensson	Prepared by		
	Approved by		
	File name	Date 20100815	Page 3 of 4
	Description	Drawing No	Status
VEHICLE CAN / INVERTER CAN			DRAFT

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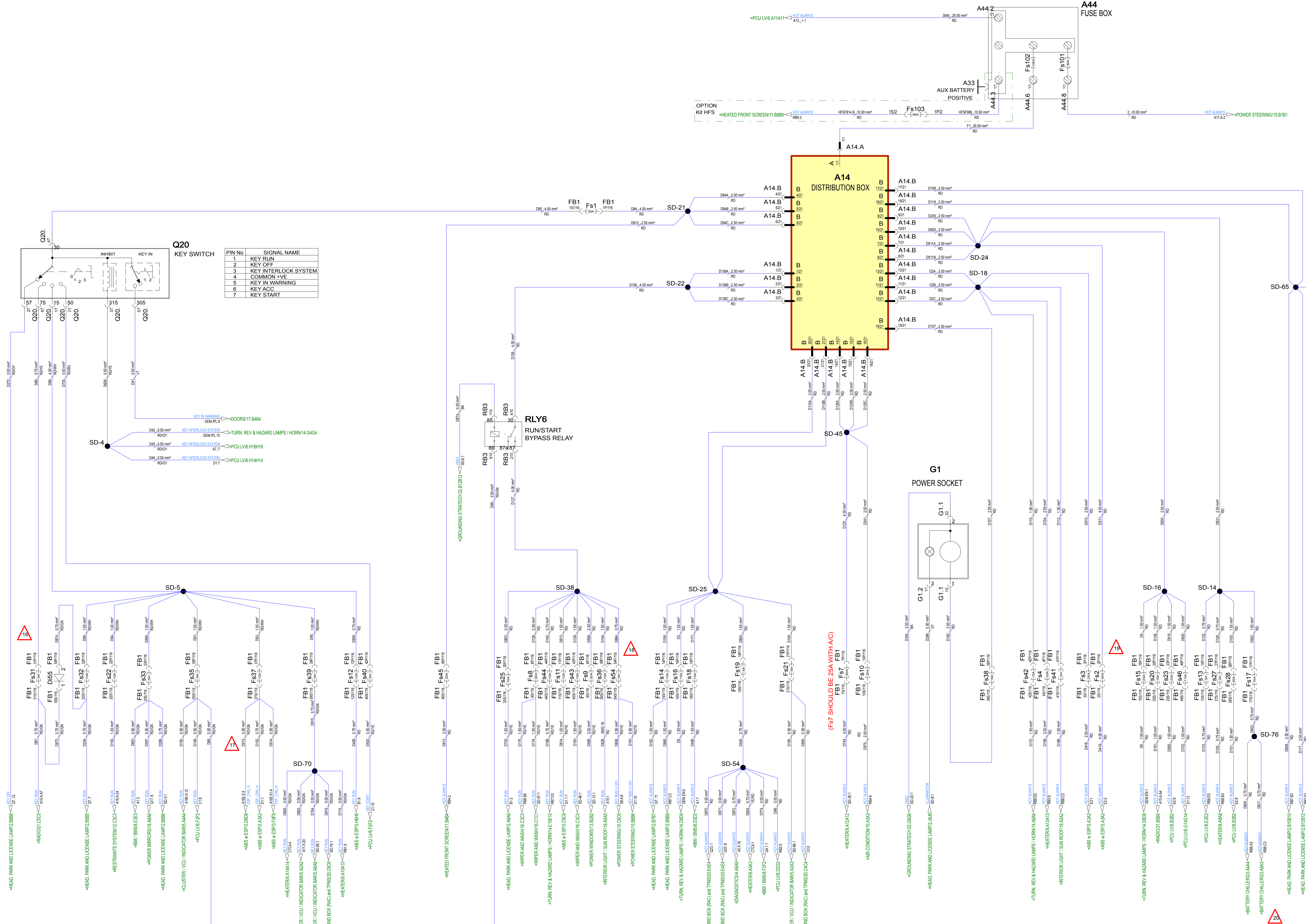
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A306 MY2011 Pre-series		File name			
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Description			Drawing no	Status	
HV AND EMERGENCY POWER OFF					DRAFT

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KEY SWITCH

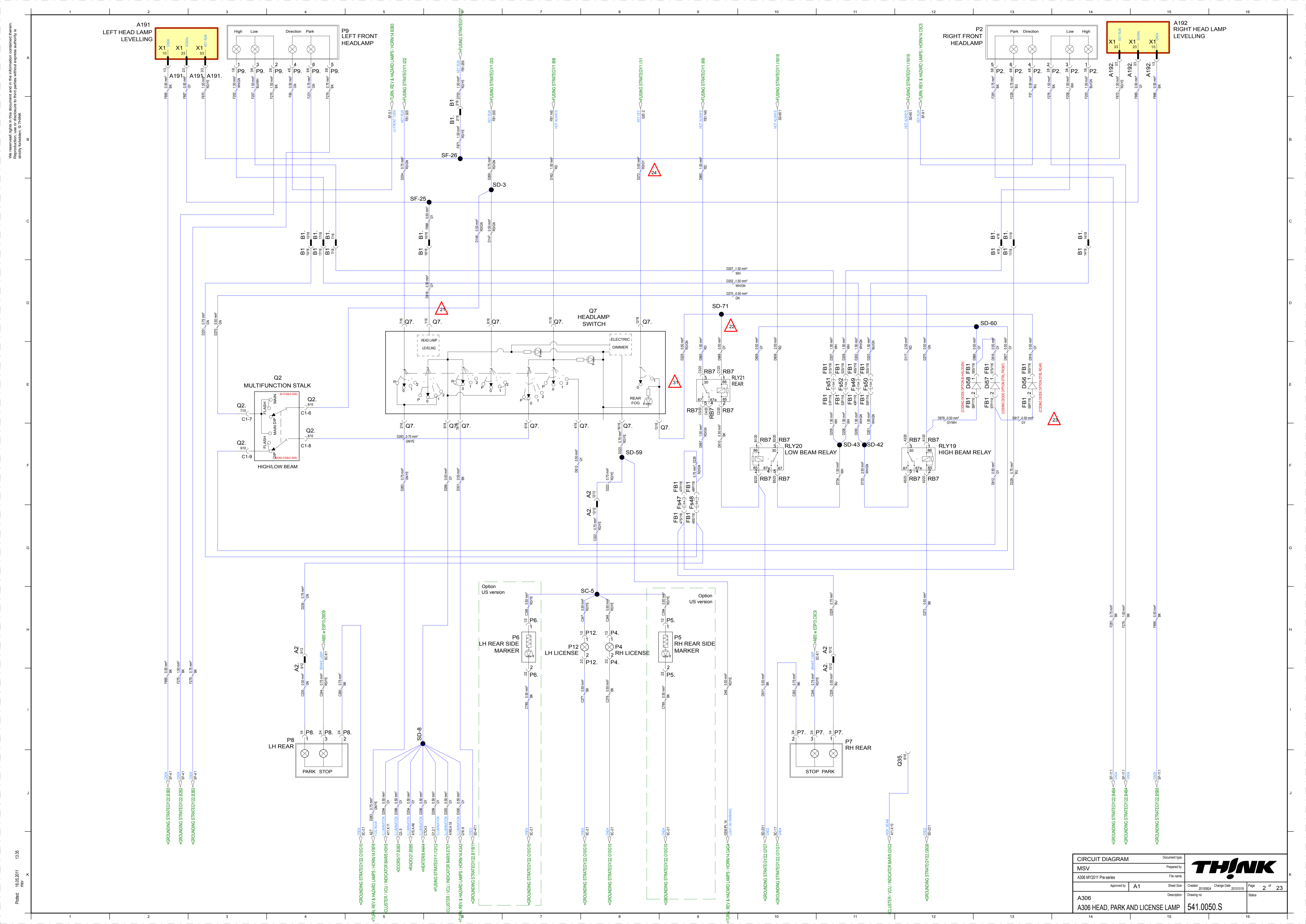
PIN No	SIGNAL NAME
1	KEY RUN
2	KEY OFF
3	KEY INTERLOCK SYSTEM
4	COMMON +VE
5	KEY IN WARNING
6	KEY ACC
7	KEY START

KEY IN (WARNING) GEM.PL1.8 → 00ORS/I7.B4B4
 KEY INTERLOCK SYSTEM GEM.PL1.5 → TURN, REV & HAZARD LAMPS / HORN/4.G4G4
 KEY INTERLOCK SYSTEM A7.7 → PCU LV6.H18H16
 KEY INTERLOCK SYSTEM D17 → PCU LV6.H14H14

(F57 SHOULD BE 25A WITH A/C)

CIRCUIT DIAGRAM		Document type	
MSV		Prepared by	
A306 MY2011 Pre-series		File name	
Approved by	A1	Sheet Size	Created
		Description	Change Date
A306		1 of 23	
A306 FUSING STRATEGY		541.0050.S	

20

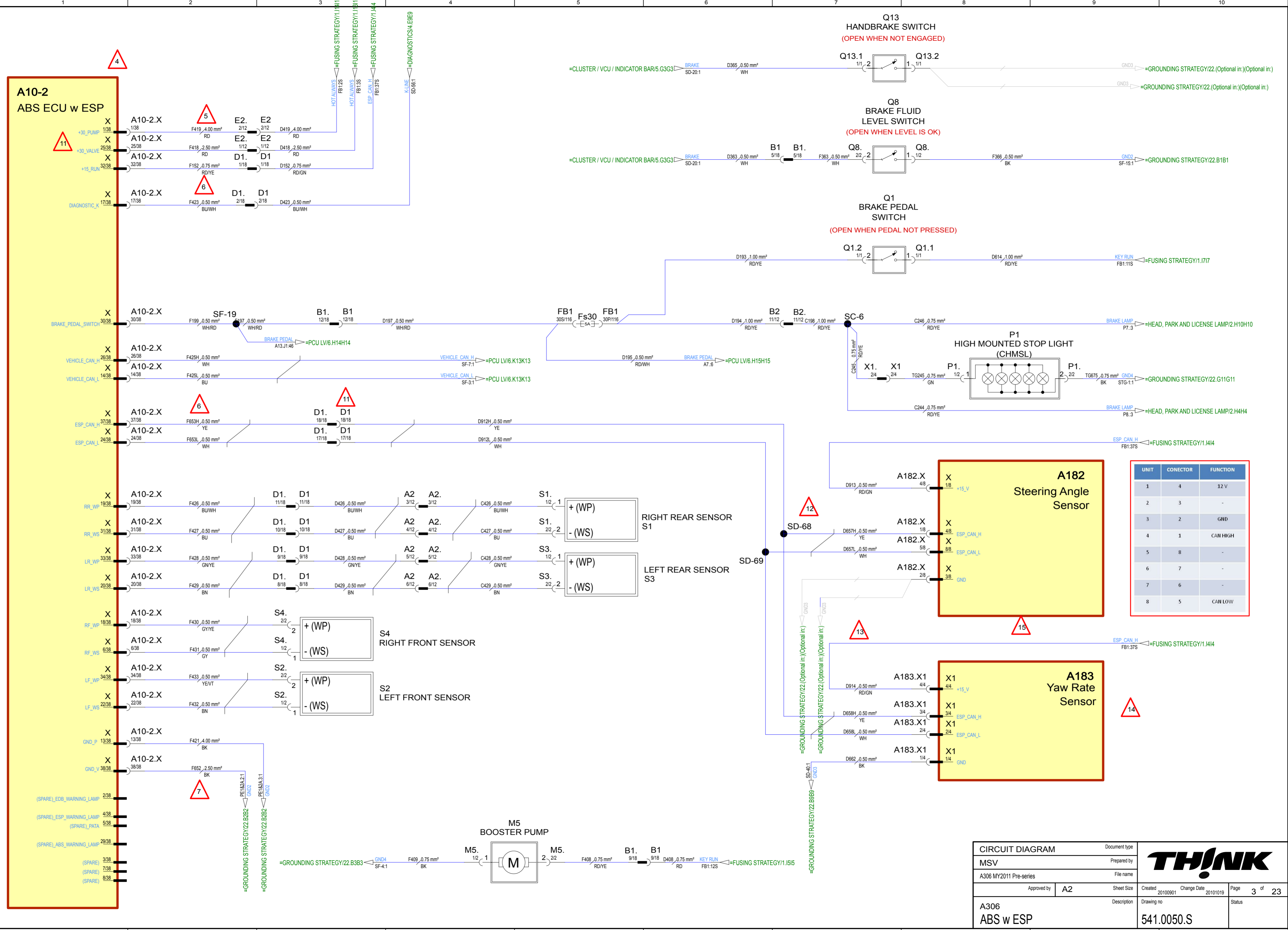


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A306 MY2011 Pre-series		File name	
Approved by	A1	Sheet Size	Created
		Description	Change Date
A306		A306 HEAD, PARK AND LICENSE LAMP	2010/01/19
A306.0050.S		Drawing no	Page 2 of 23
		Status	



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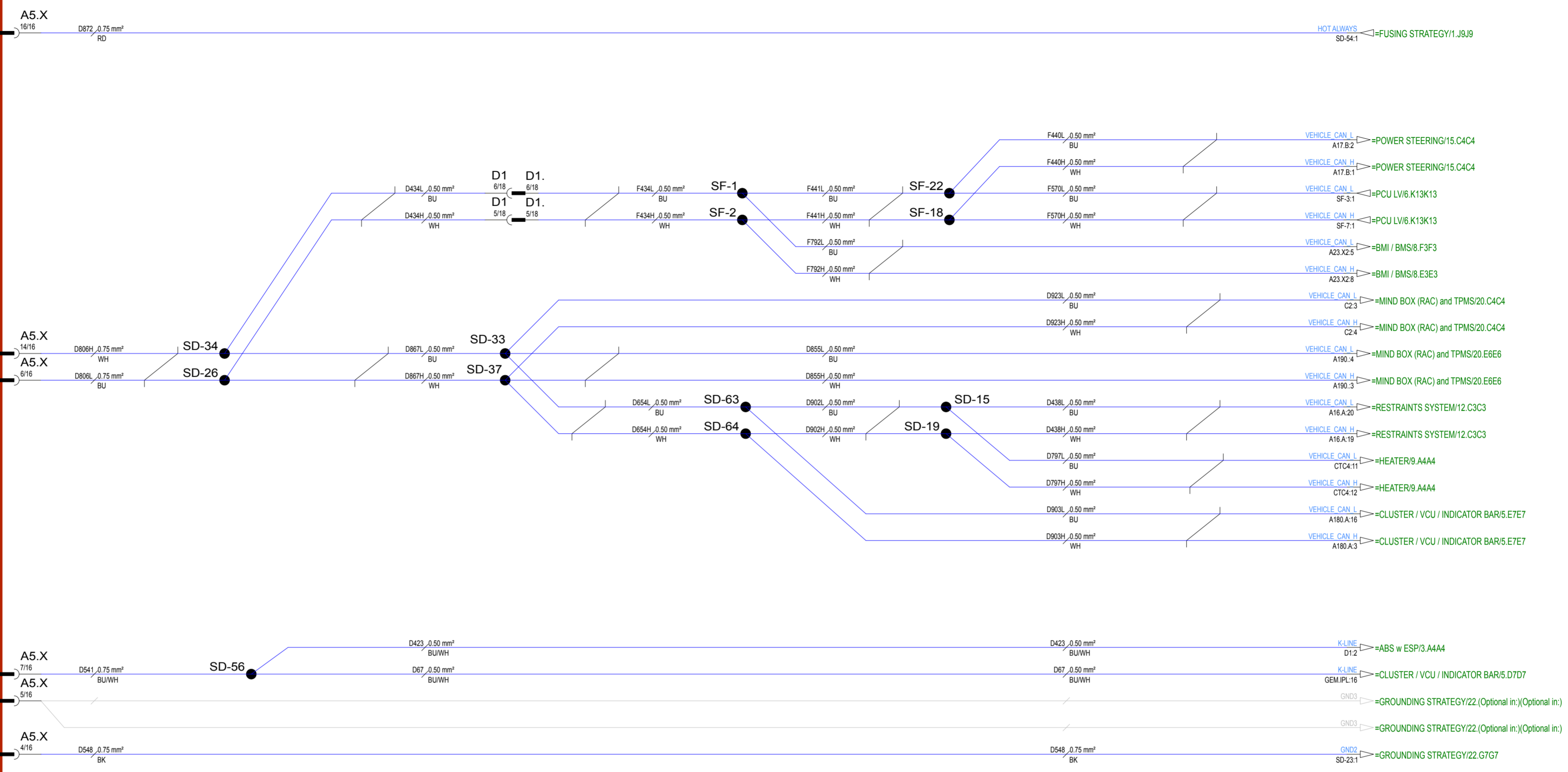
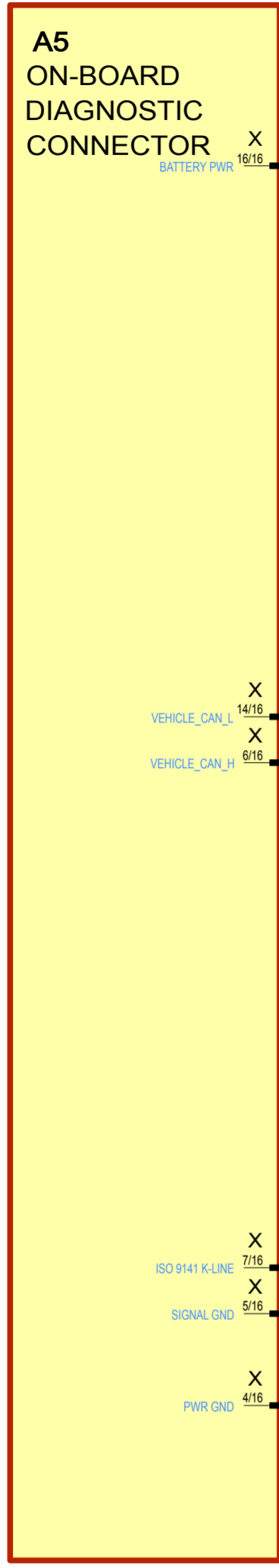


UNIT	CONNECTOR	FUNCTION
1	4	12 V
2	3	-
3	2	GND
4	1	CAN HIGH
5	8	-
6	7	-
7	6	-
8	5	CAN LOW

CIRCUIT DIAGRAM		Document type
MSV		Prepared by
A306 MY2011 Pre-series		File name
Approved by	A2	Sheet Size
A306		Created
ABS w ESP		Change Date
		Page
		3 of 23
		Status
		541.0050.S

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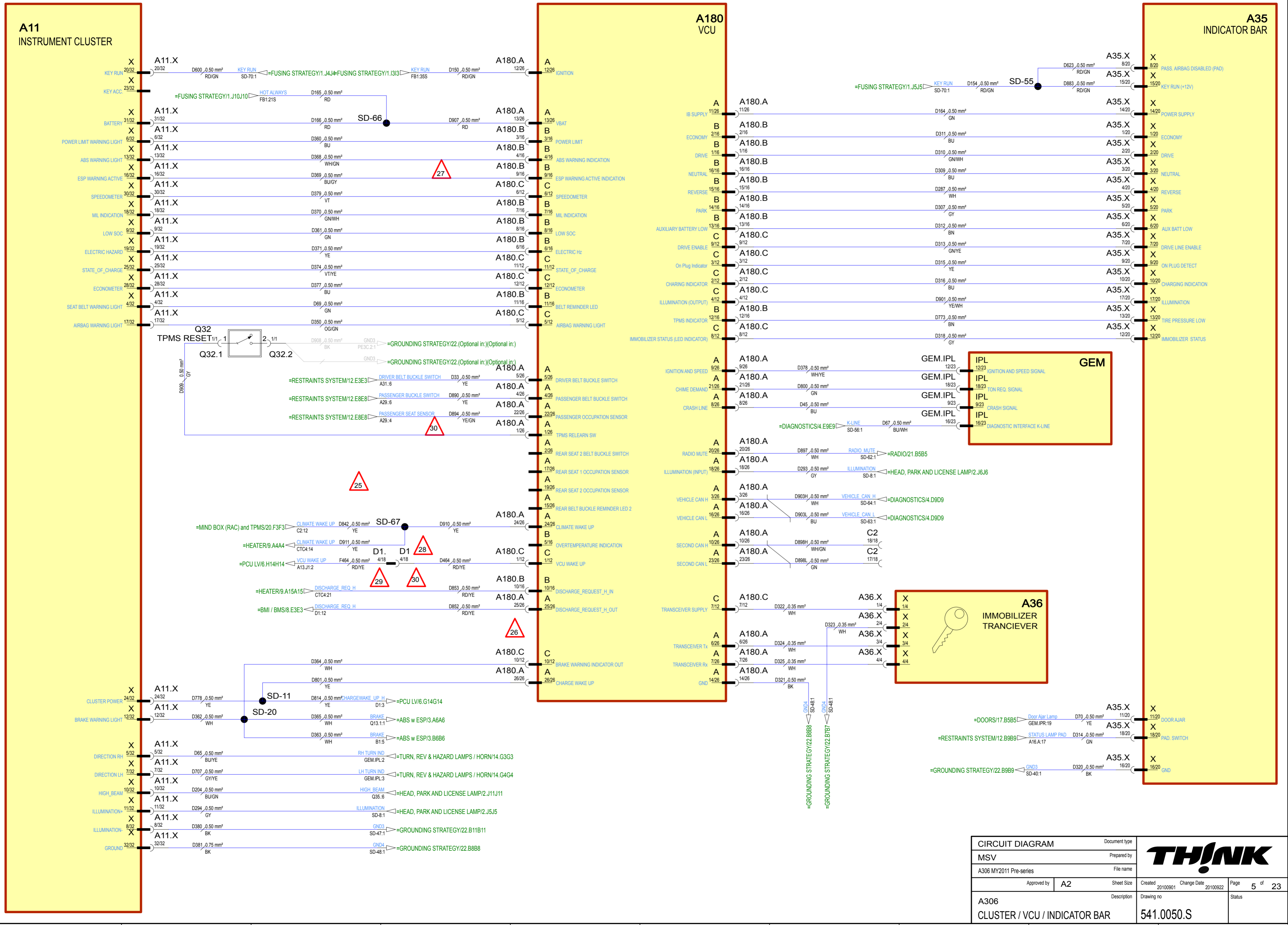


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CIRCUIT DIAGRAM		Document type	
MSV		Prepared by	
A306 MY2011 Pre-series		File name	
Approved by	A2	Sheet Size	Created 20091209 Change Date 20100922 Page 4 of 23
A306 DIAGNOSTICS		Description	Drawing no Status
		541.0050.S	



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A306 MY2011 Pre-series		File name	
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A306		Description	Drawing no
CLUSTER / VCU / INDICATOR BAR		541.0050.S	



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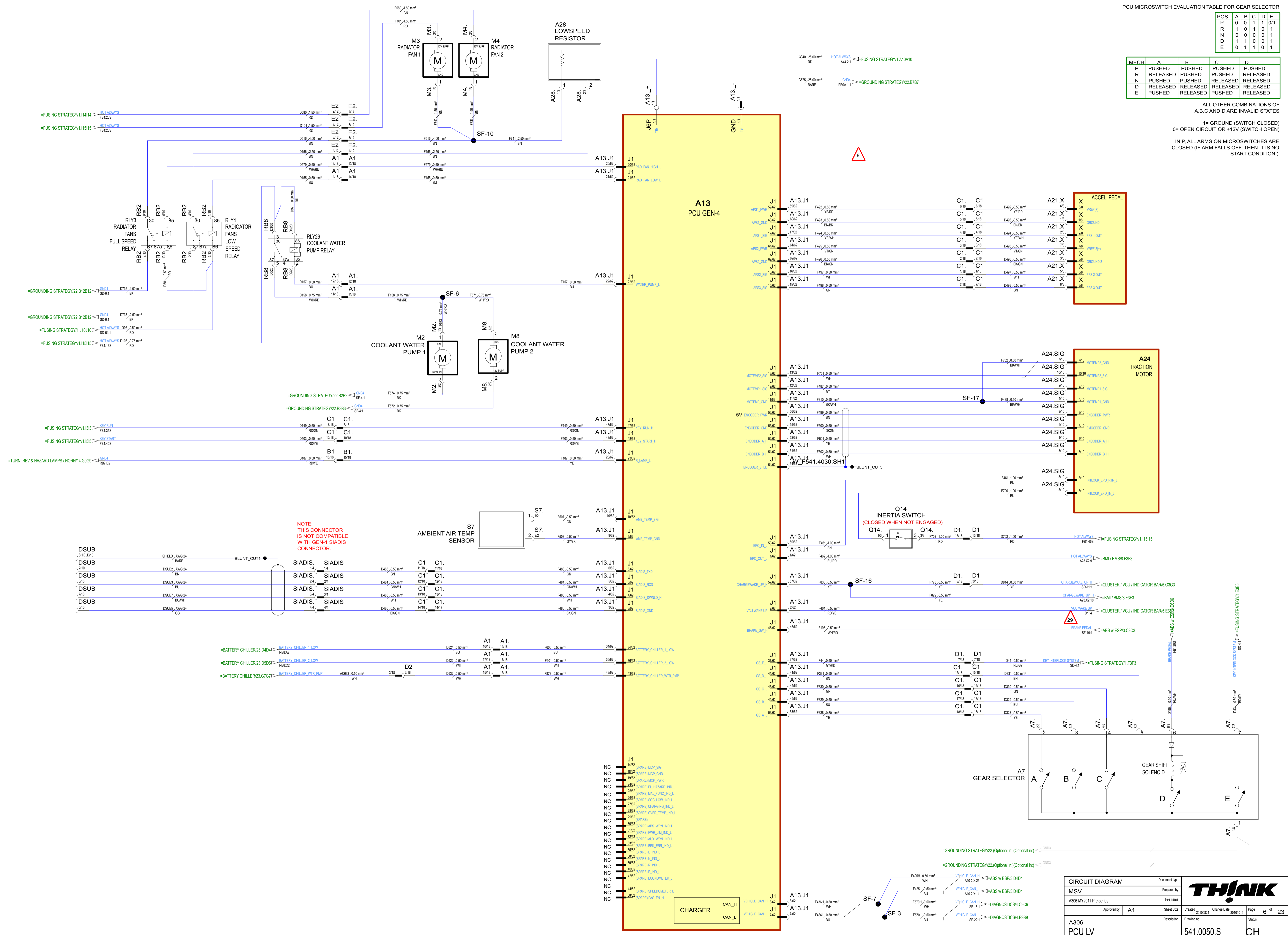
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PCU MICROSWITCH EVALUATION TABLE FOR GEAR SELECTOR

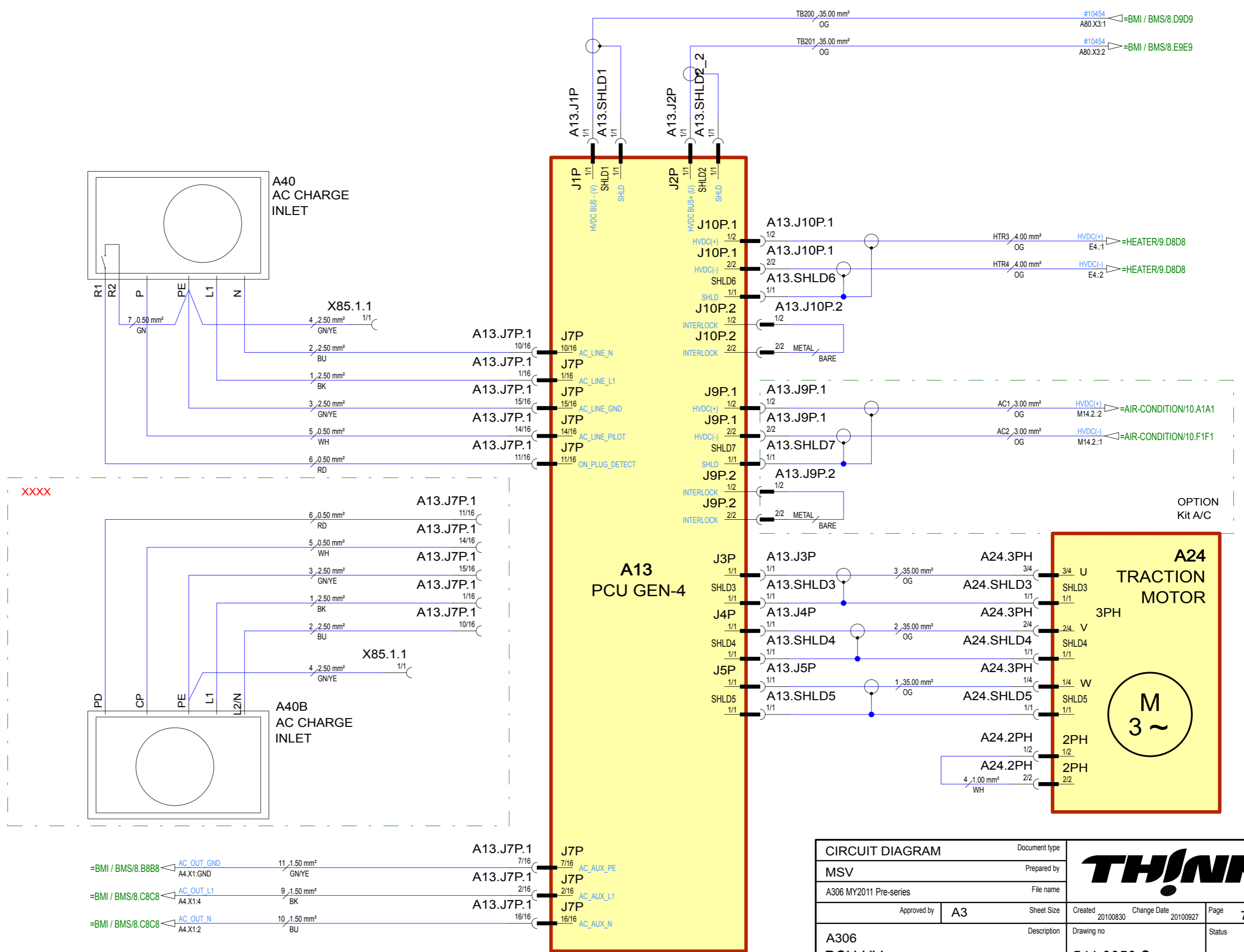
POS.	A	B	C	D	E
P	0	0	1	1	0/1
R	1	0	1	0	1
N	0	0	0	0	1
D	1	1	1	0	1
E	0	1	1	0	1

MECH.	A	B	C	D
P	PUSHED	PUSHED	PUSHED	PUSHED
R	RELEASED	PUSHED	PUSHED	RELEASED
N	PUSHED	RELEASED	RELEASED	RELEASED
D	RELEASED	RELEASED	PUSHED	RELEASED
E	PUSHED	RELEASED	RELEASED	RELEASED

ALL OTHER COMBINATIONS OF A,B,C AND D ARE INVALID STATES
 1= GROUND (SWITCH CLOSED)
 0= OPEN CIRCUIT OR +12V (SWITCH OPEN)
 IN P: ALL ARMS ON MICROSWITCHES ARE CLOSED (IF ARM FALLS OFF, THEN IT IS NO START CONDITION)



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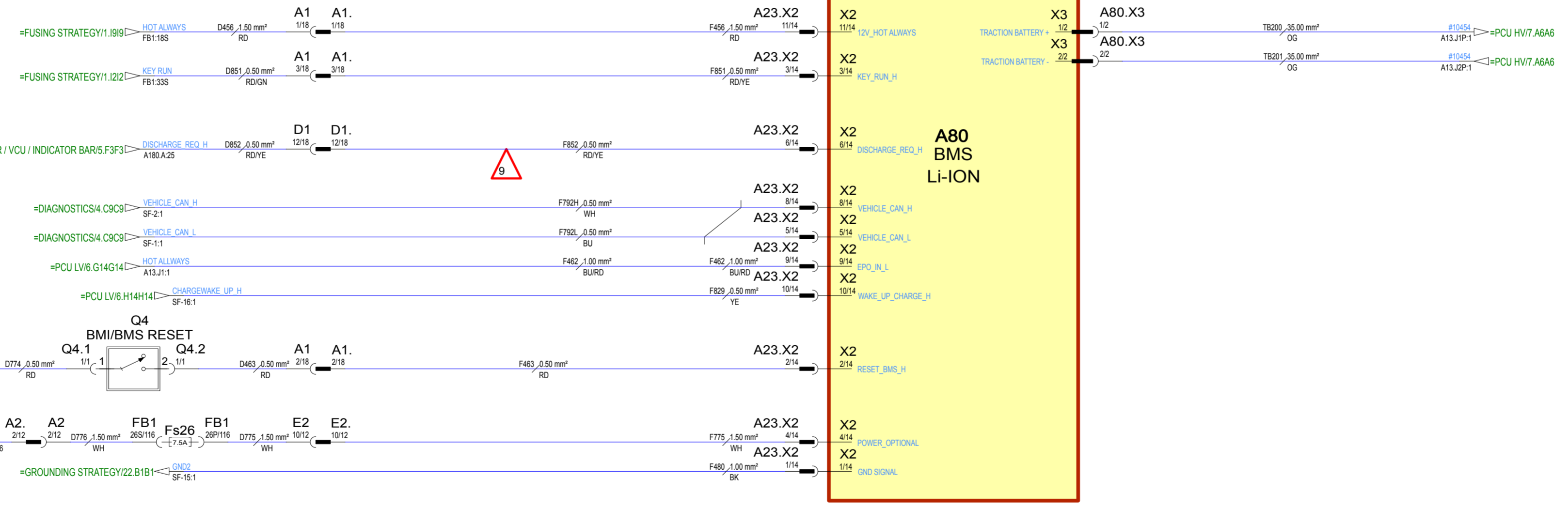
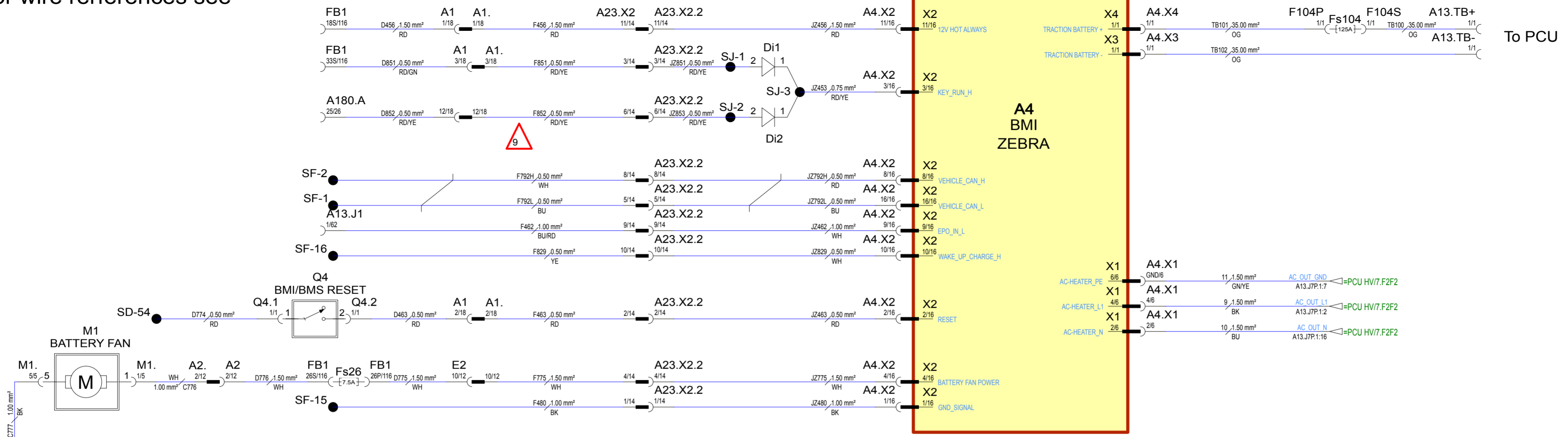


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CIRCUIT DIAGRAM		Document type		
MSV		Prepared by		
A306 MY2011 Pre-series		File name		
Approved by	A3	Sheet Size	Created 20100830	Change Date 20100927
A306 PCU HV		Description	Drawing no	Status
			541.0050.S	
			Page 7 of 23	



For wire references see

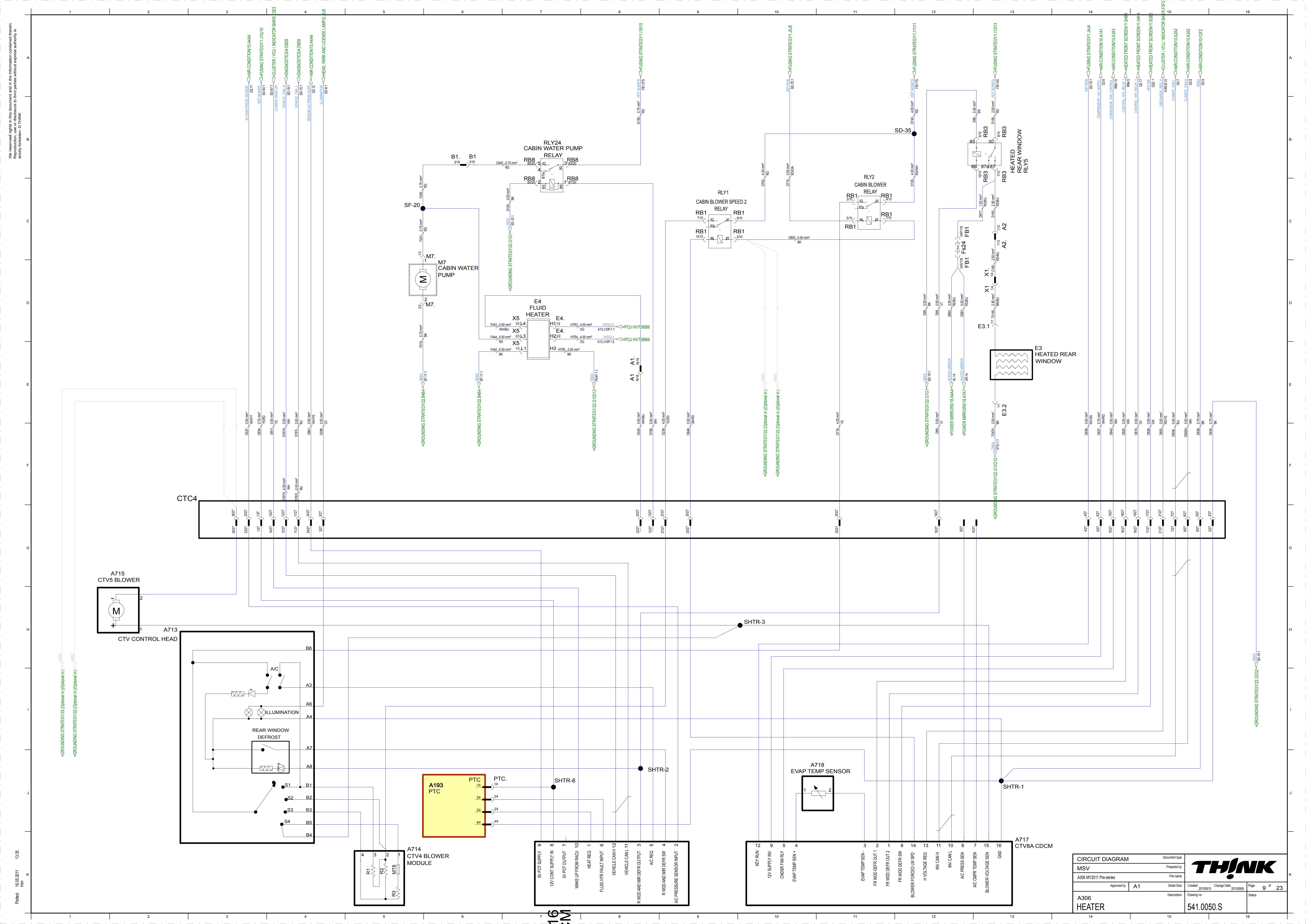


BATTERY MONITORING UNITS ARE SPECIFIC TO BATTERY TYPE

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MSV		Prepared by			
A306 MY2011 Pre-series		File name		Page 8 of 23	
Approved by	A2	Sheet Size	Created 16/11/2009		
A306		Description		Drawing no	
BMI / BMS				541.0050.S	

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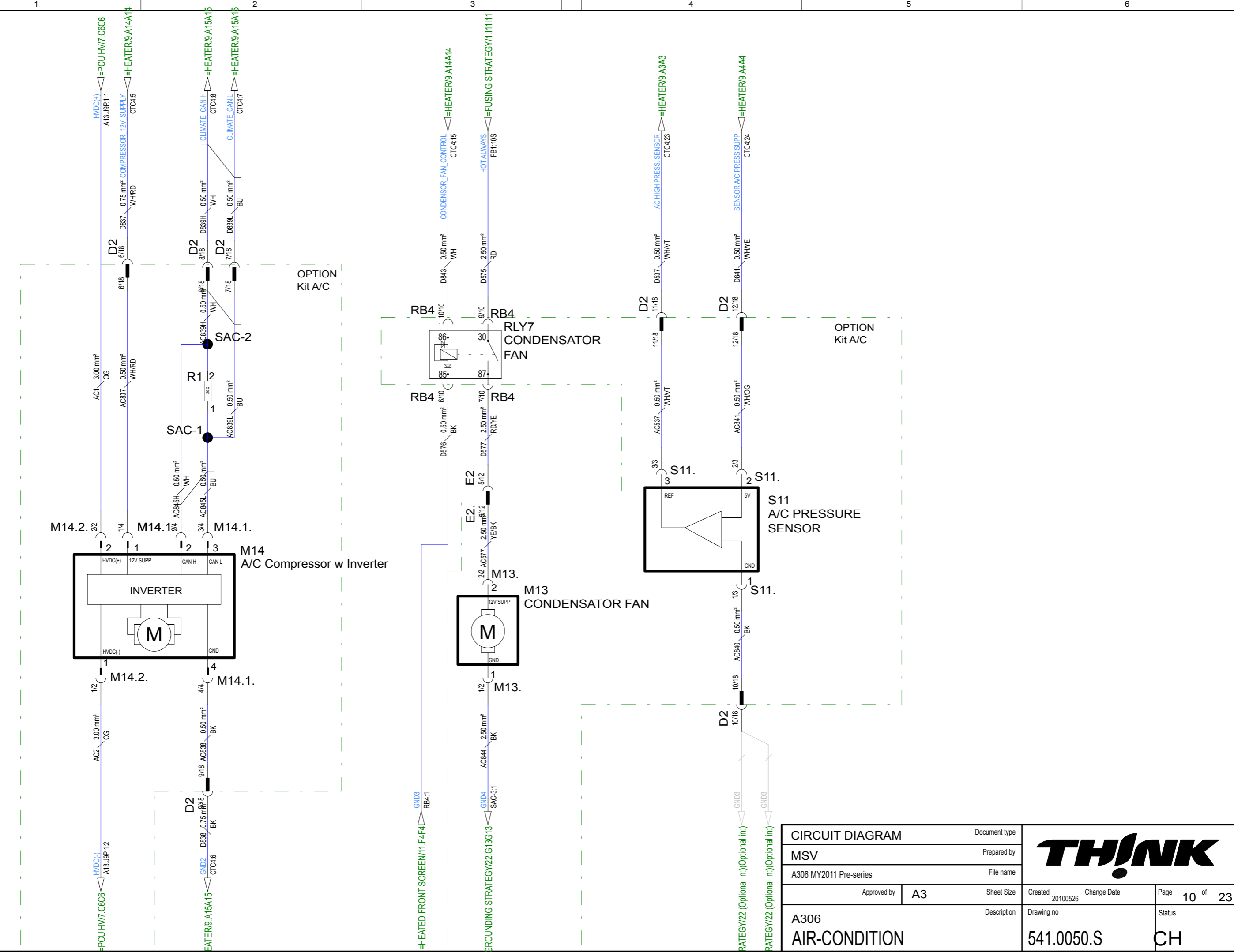
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REV

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MSV		Prepared by
A306 MY2011 Pre-series		File name
Approved by	A1	Sheet Size
A306 HEATER		Created 20100915
Drawing no		Change Date 20100901
541.0050.S		Page 9 of 23
Status		

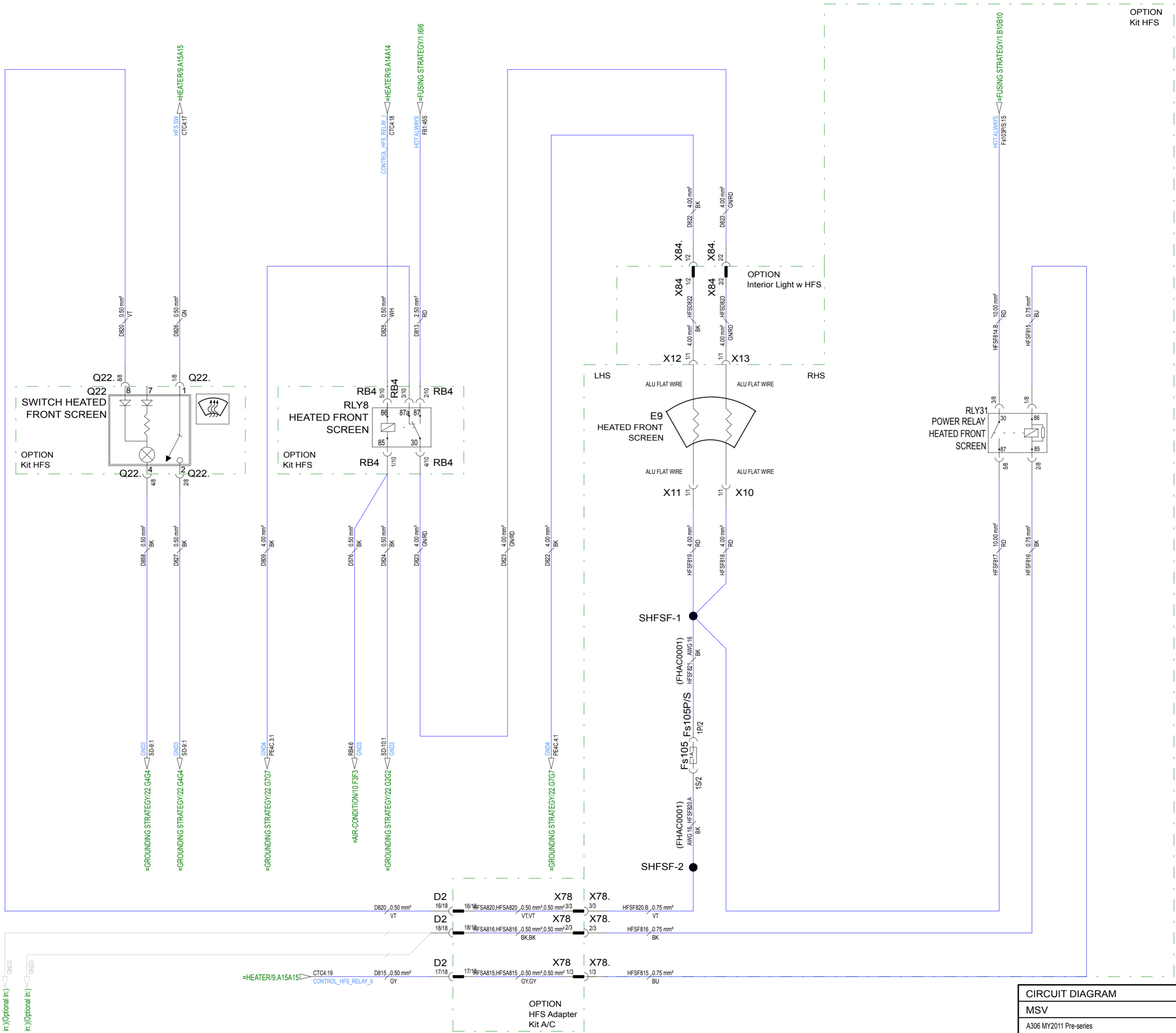
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MSV		Prepared by		
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Approved by	A3	Sheet Size	Created 20100526	Change Date
A306 AIR-CONDITION		Description	Drawing no	Status
			541.0050.S	CH

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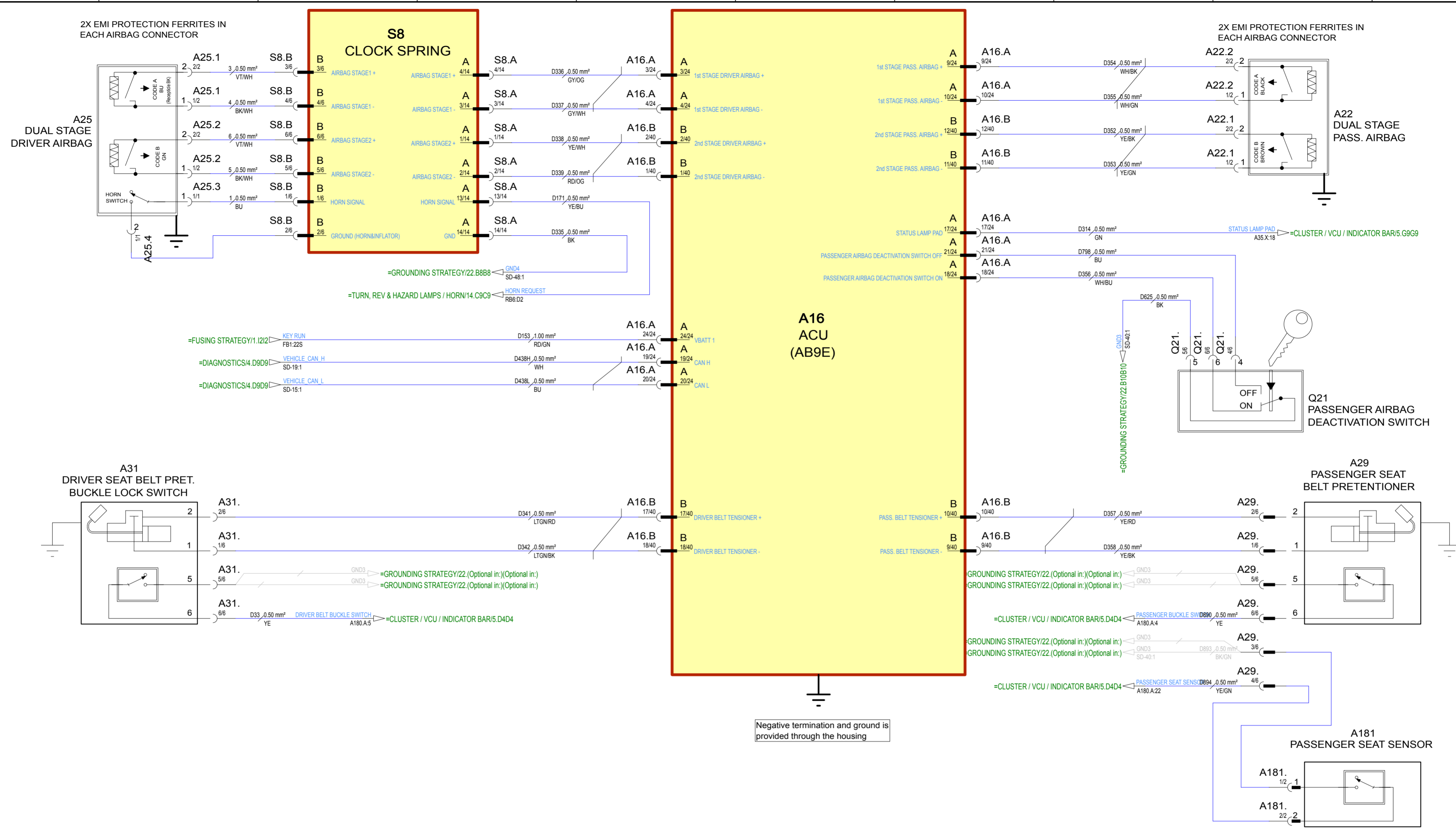


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MSV		Prepared by	
A306 MY2011 Pre-series		File name	
Approved by	A2	Sheet Size	Created 20100309 Change Date
A306		Description	Page 11 of 23
HEATED FRONT SCREEN		Drawing no	Status
		541.0050.S	



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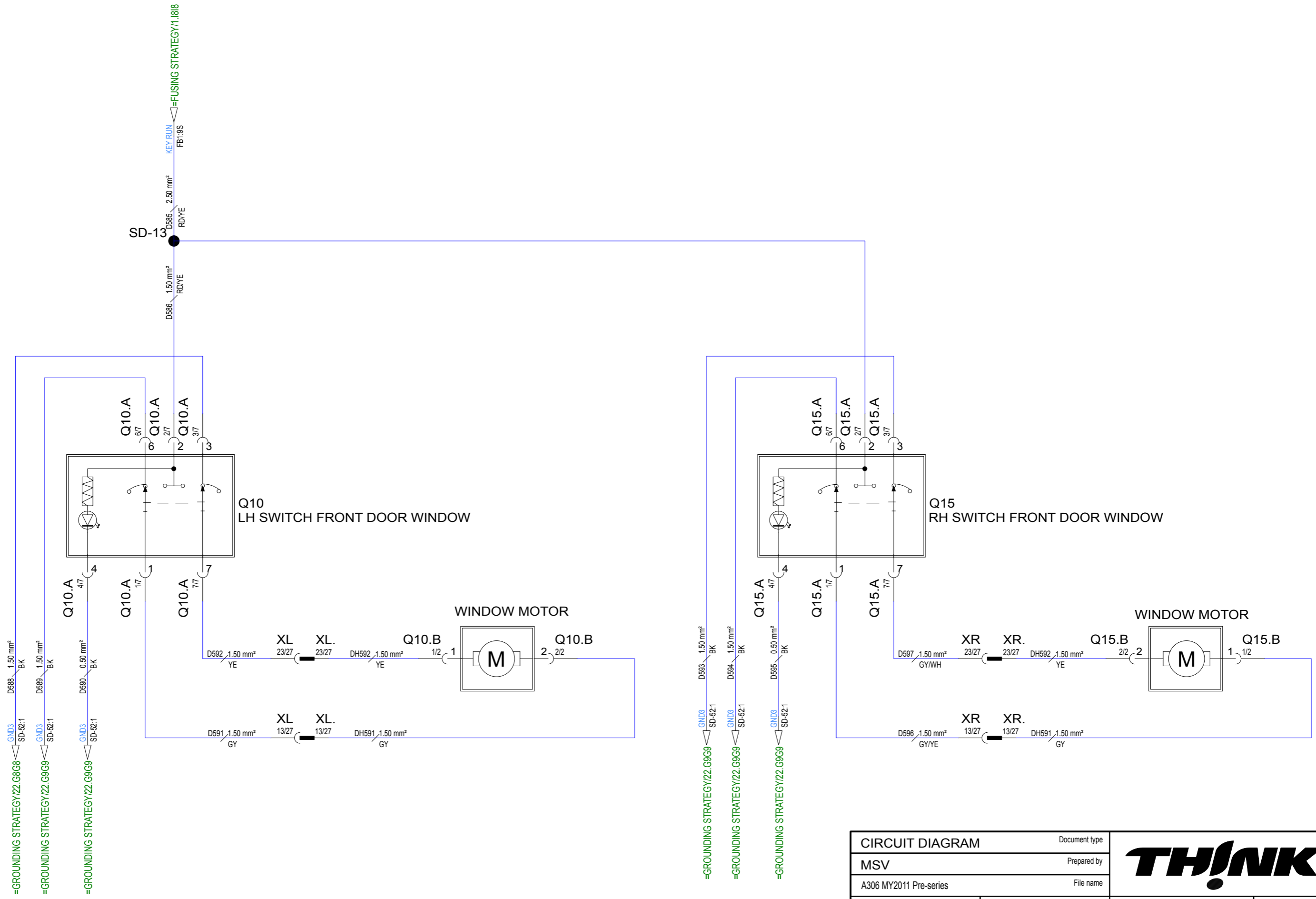
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MSV		Prepared by		
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Approved by	A2	Sheet Size	Created 20091209	Change Date 20101019
A306		Description	Drawing no	Status
RESTRAINTS SYSTEM		541.0050.S	Draft	
		Page	12 of 23	



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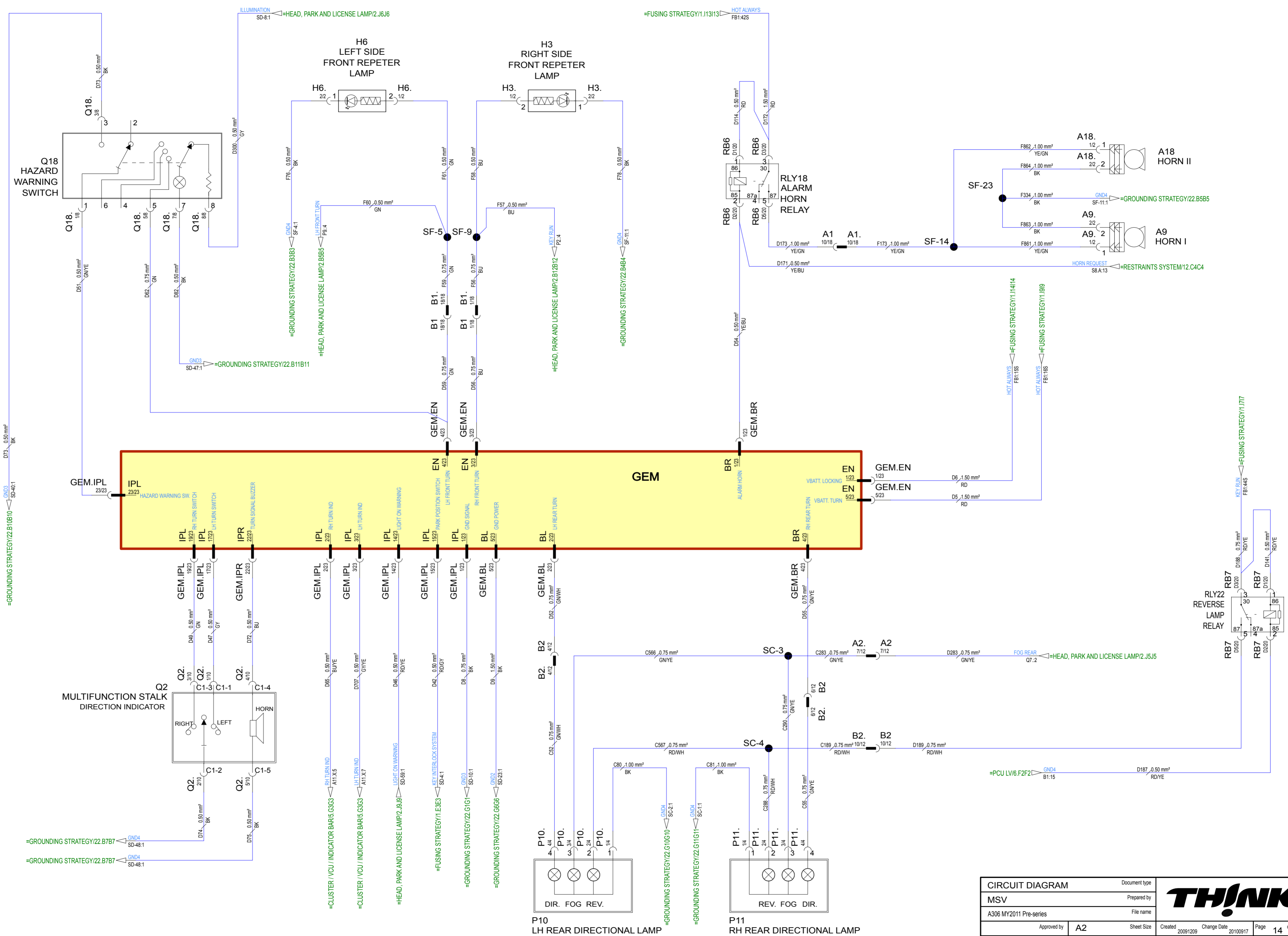
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msv



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MSV		Prepared by	
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A306 POWER WINDOWS		Description	Page 13 of 23
		Drawing no	Status
		541.0050.S	



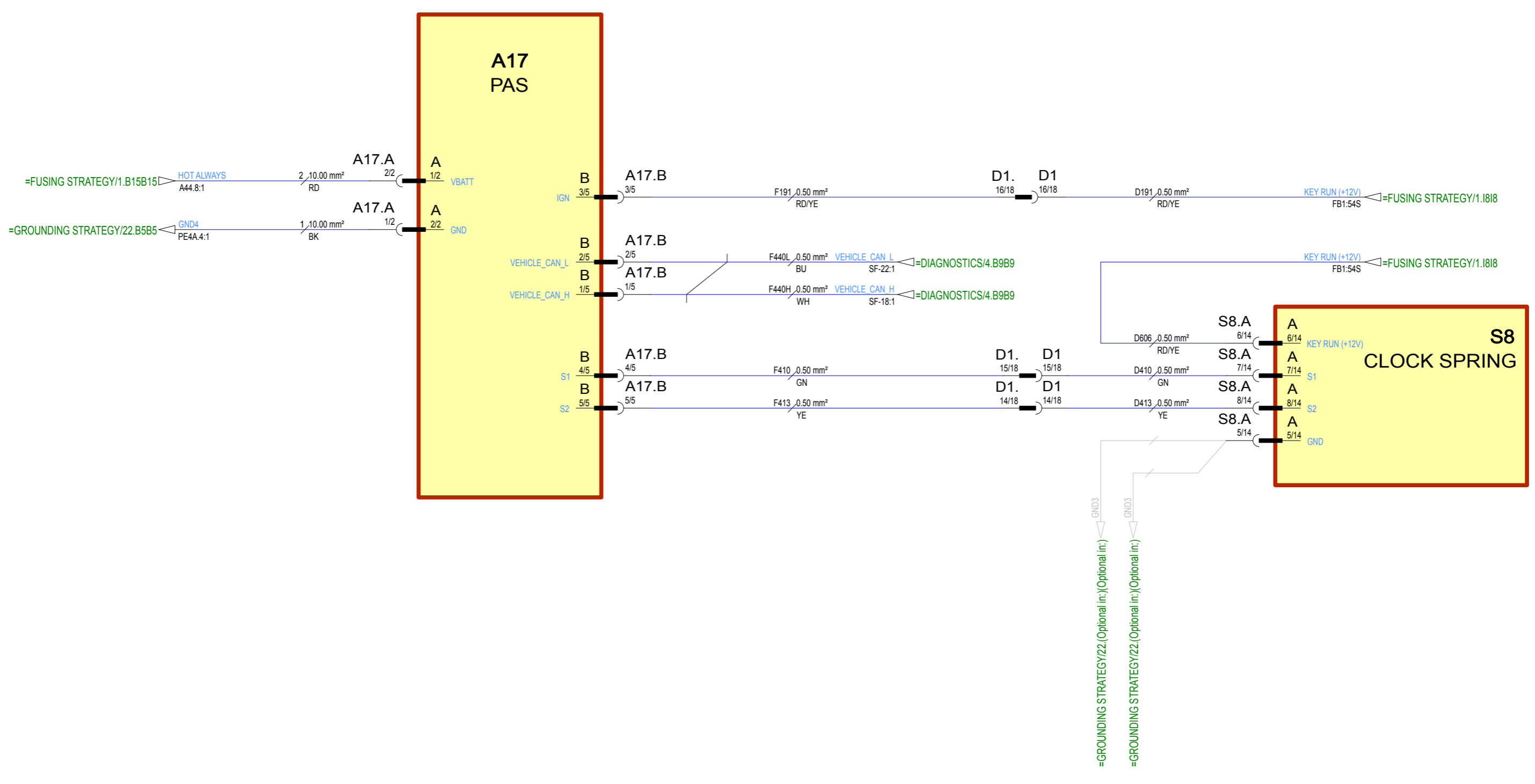
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MSV		Prepared by	
A306 MY2011 Pre-series		File name	Page 14 of 23
Approved by	A2	Sheet Size	
A306		Description	Status
TURN, REV & HAZARD LAMPS / HORN		Drawing no	
		Created	20091209
		Change Date	20100917
		Page	14 of 23
		Drawing no	541.0050.S

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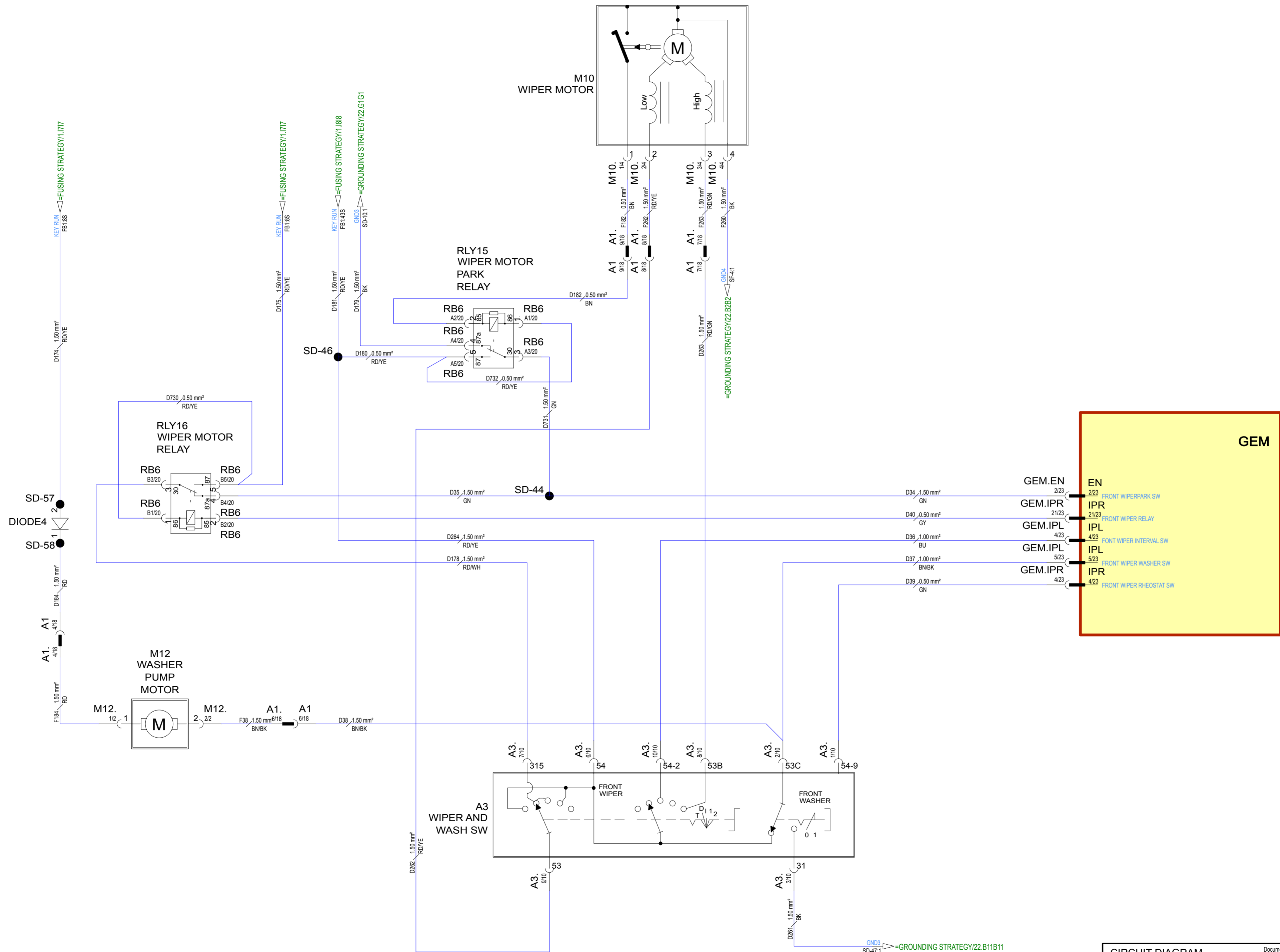


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Approved by	A3	Sheet Size	Created 20091209 Change Date 20100917
A306 POWER STEERING		Description	Page 15 of 23
		Drawing no	Status
		541.0050.S	



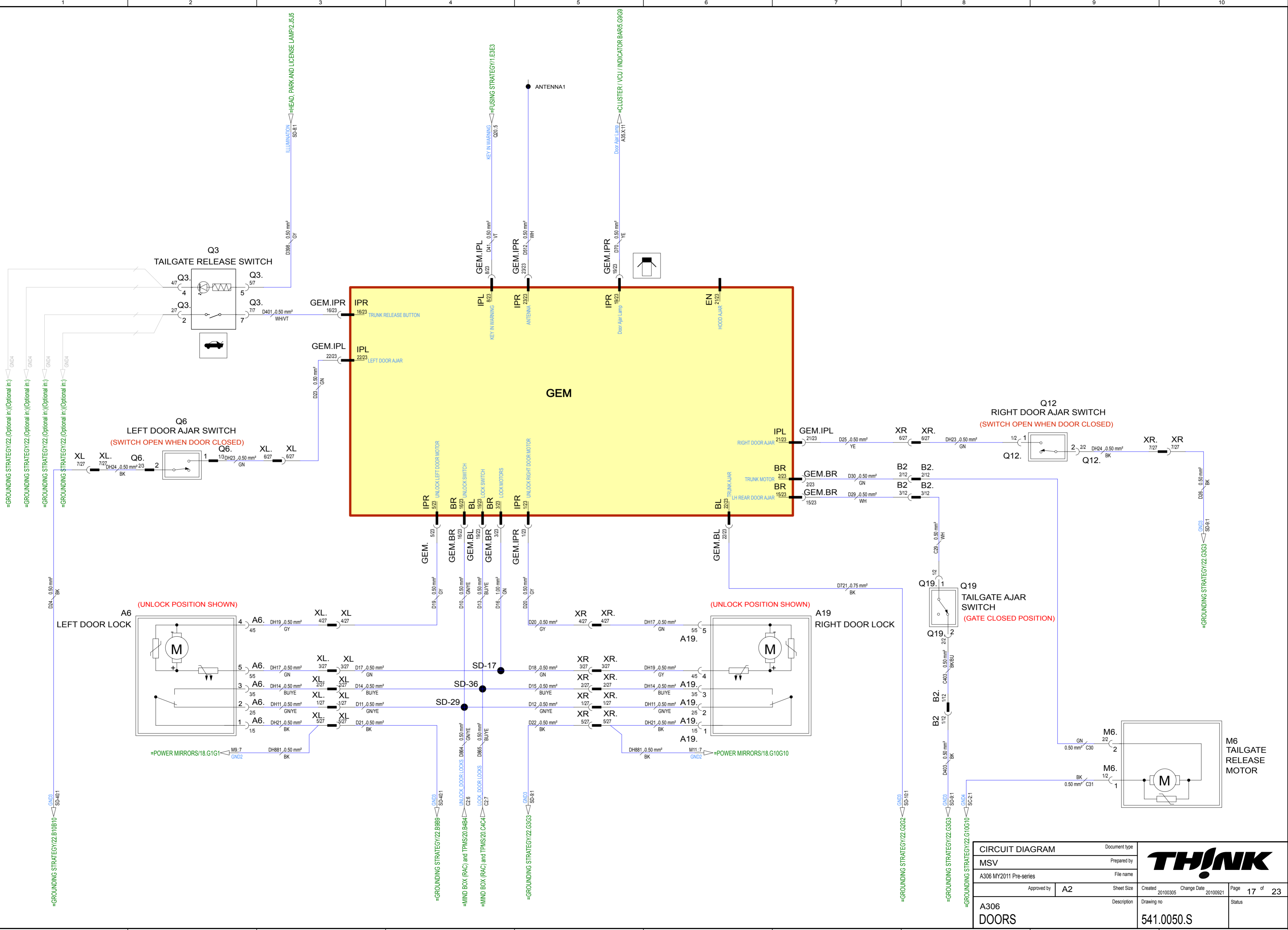
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Approved by	A2	Sheet Size	Created 20091209 Change Date 20100917 Page 16 of 23
A306 WIPER AND WASH		Description	Drawing no 541.0050.S Status



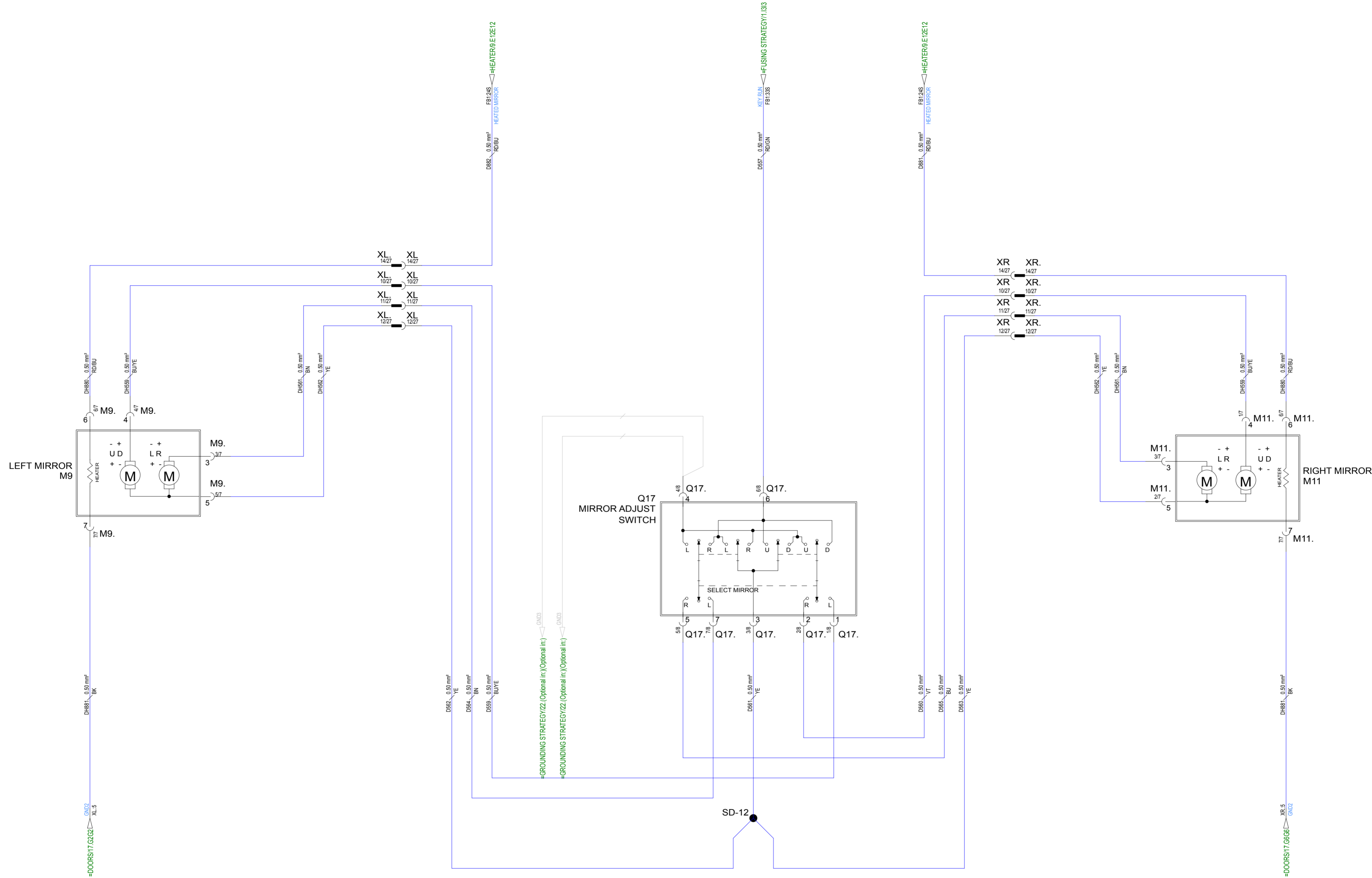
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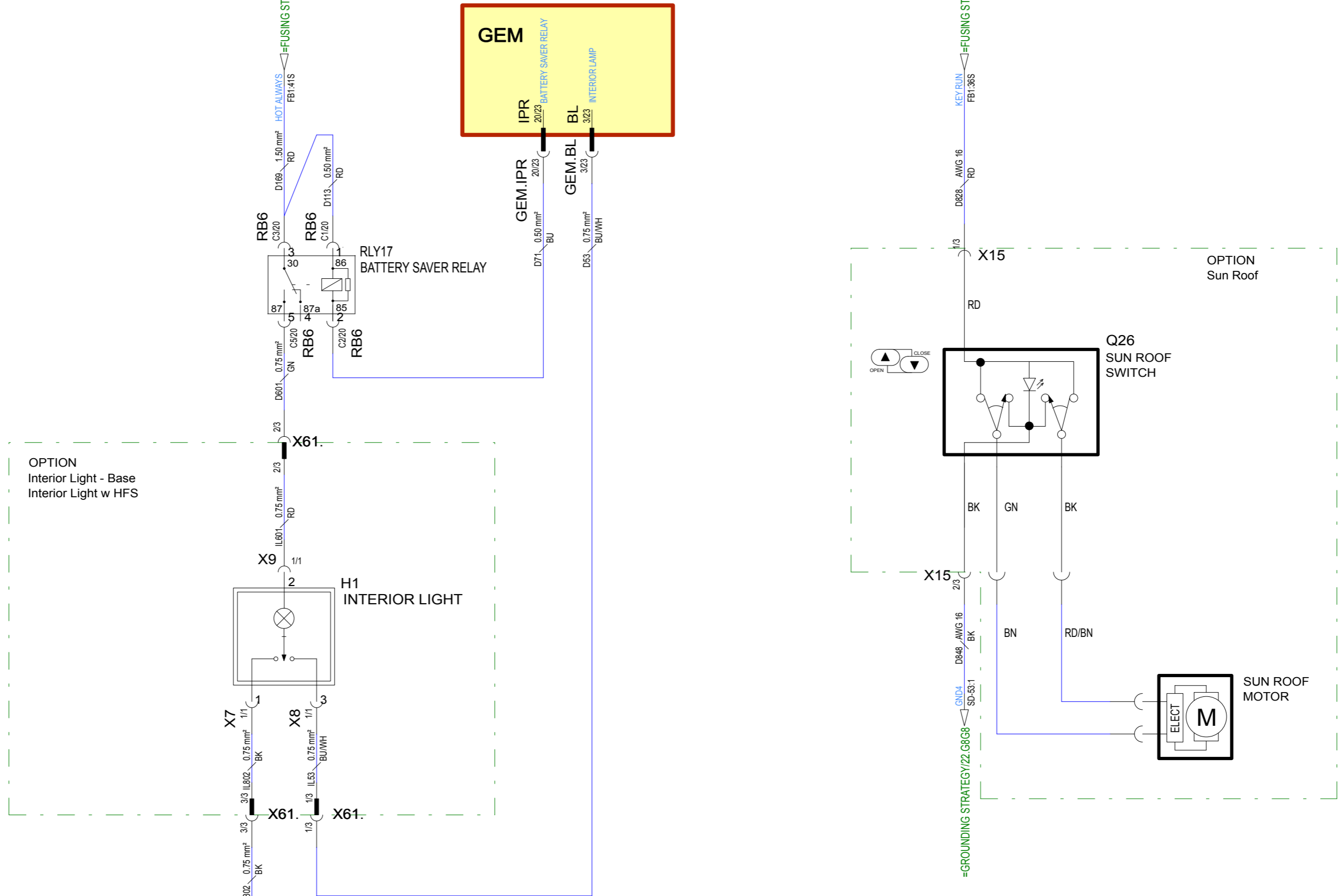
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Created	20100305	Change Date
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A306 DOORS		Status
Description		Drawing no
4541.0050.S		





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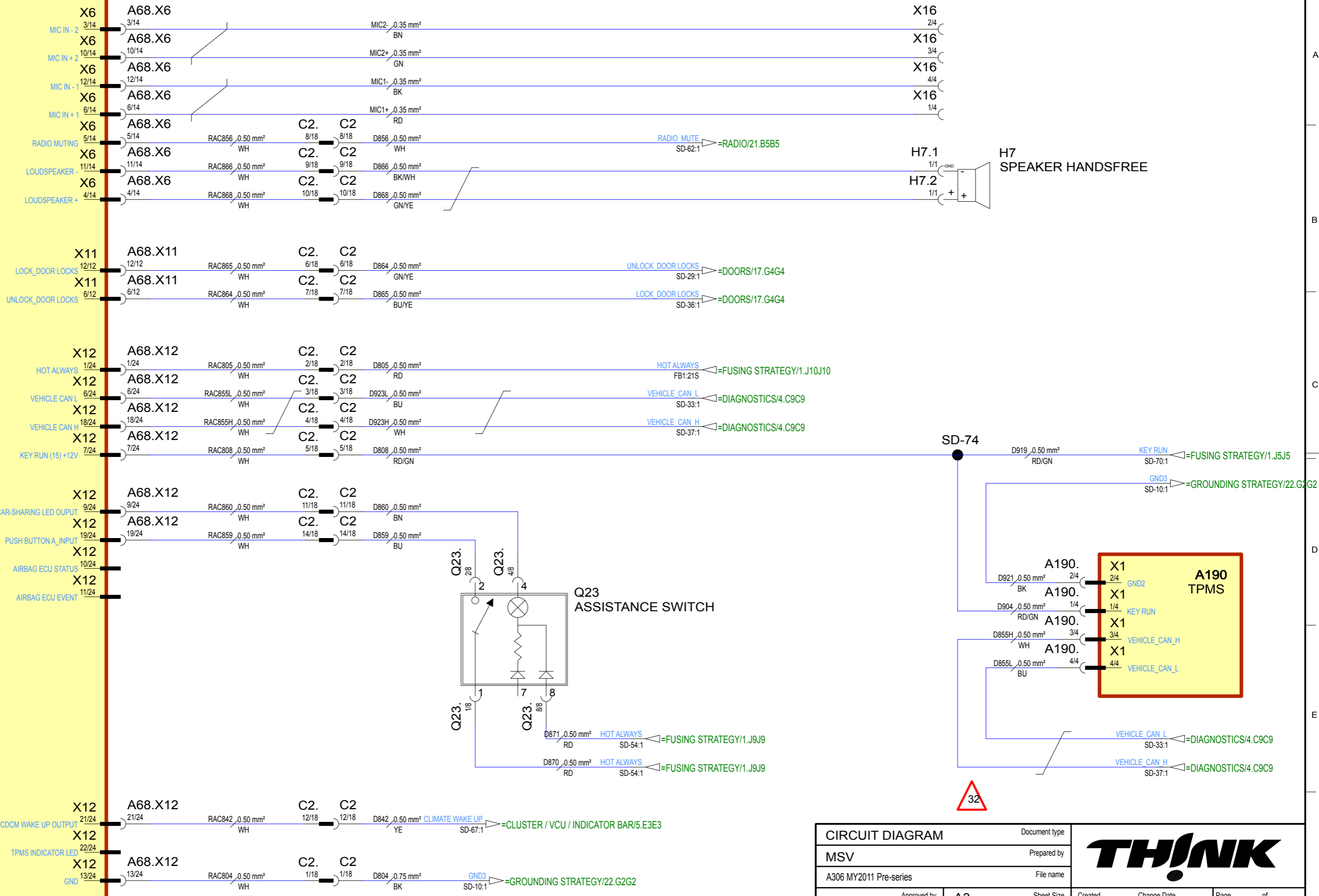
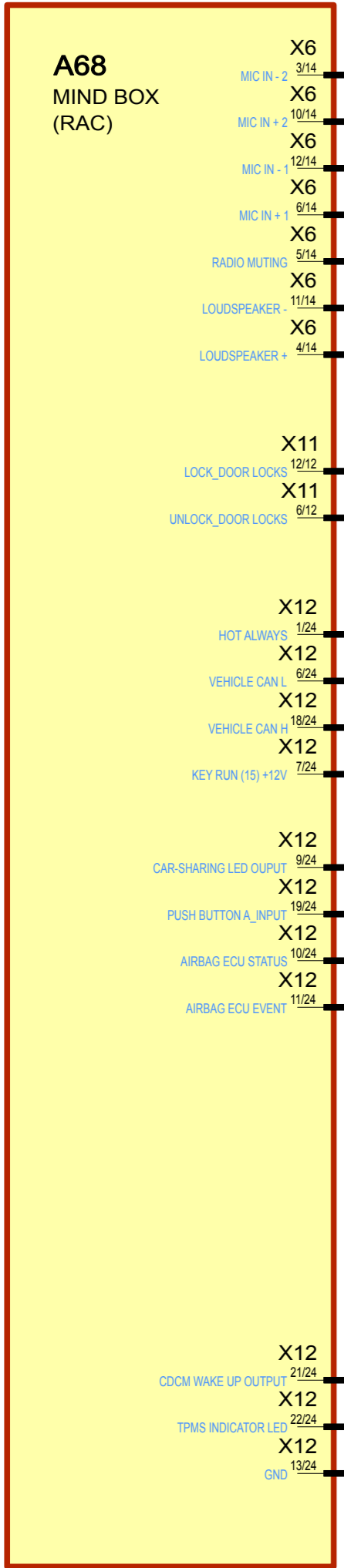


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MSV		Prepared by	
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Approved by	A3	Sheet Size	Created 20100309 Change Date
A306		Description	Page 19 of 23
INTERIOR LIGHT / SUN ROOF		Drawing no	Status
		541.0050.S	



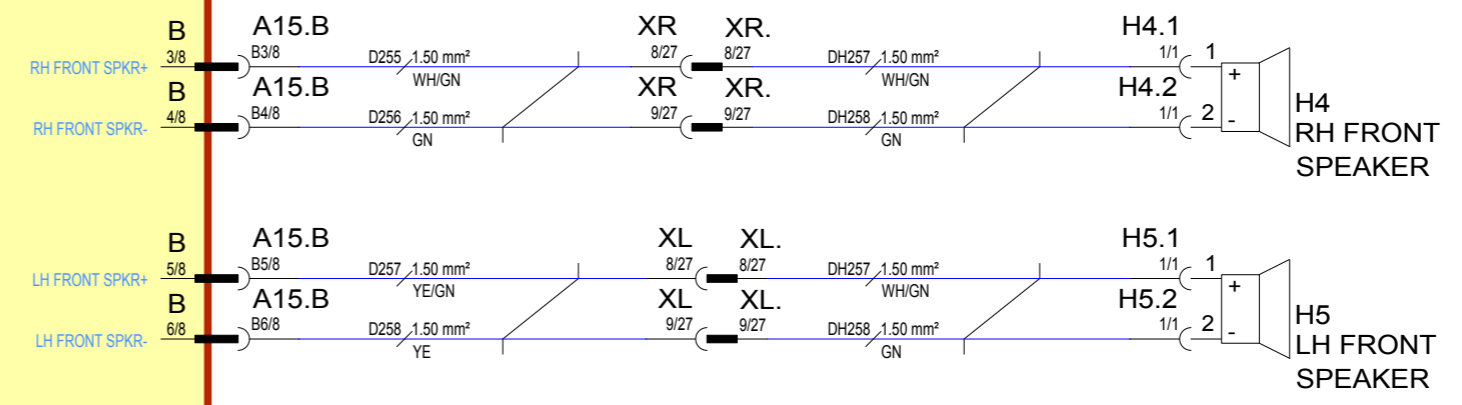
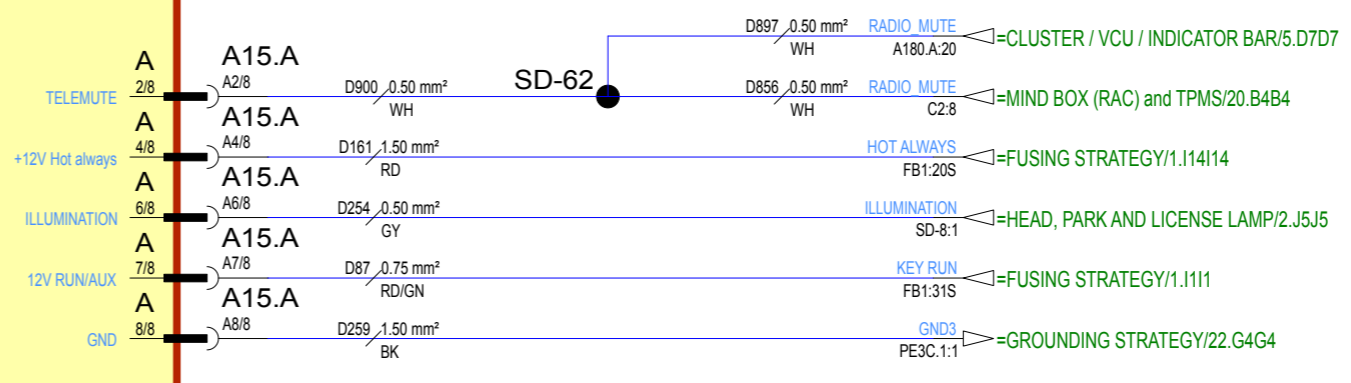
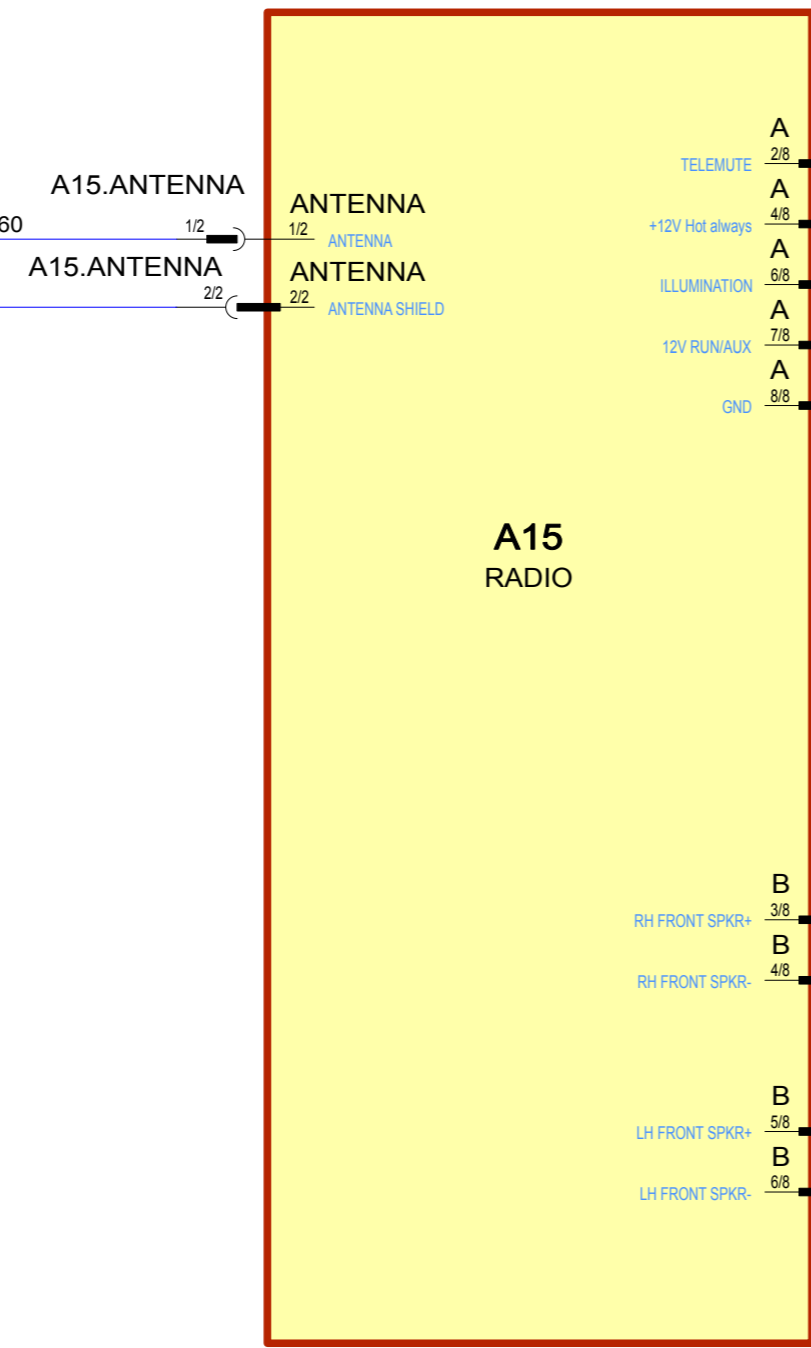
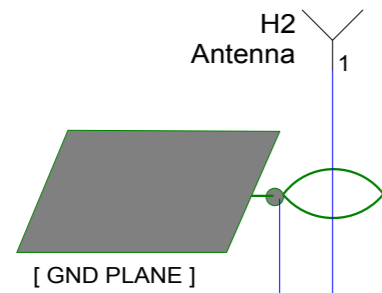
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A306		Description	Page 20 of 23
MIND BOX (RAC) and TPMS		Drawing no	Status
		541.0050.S	



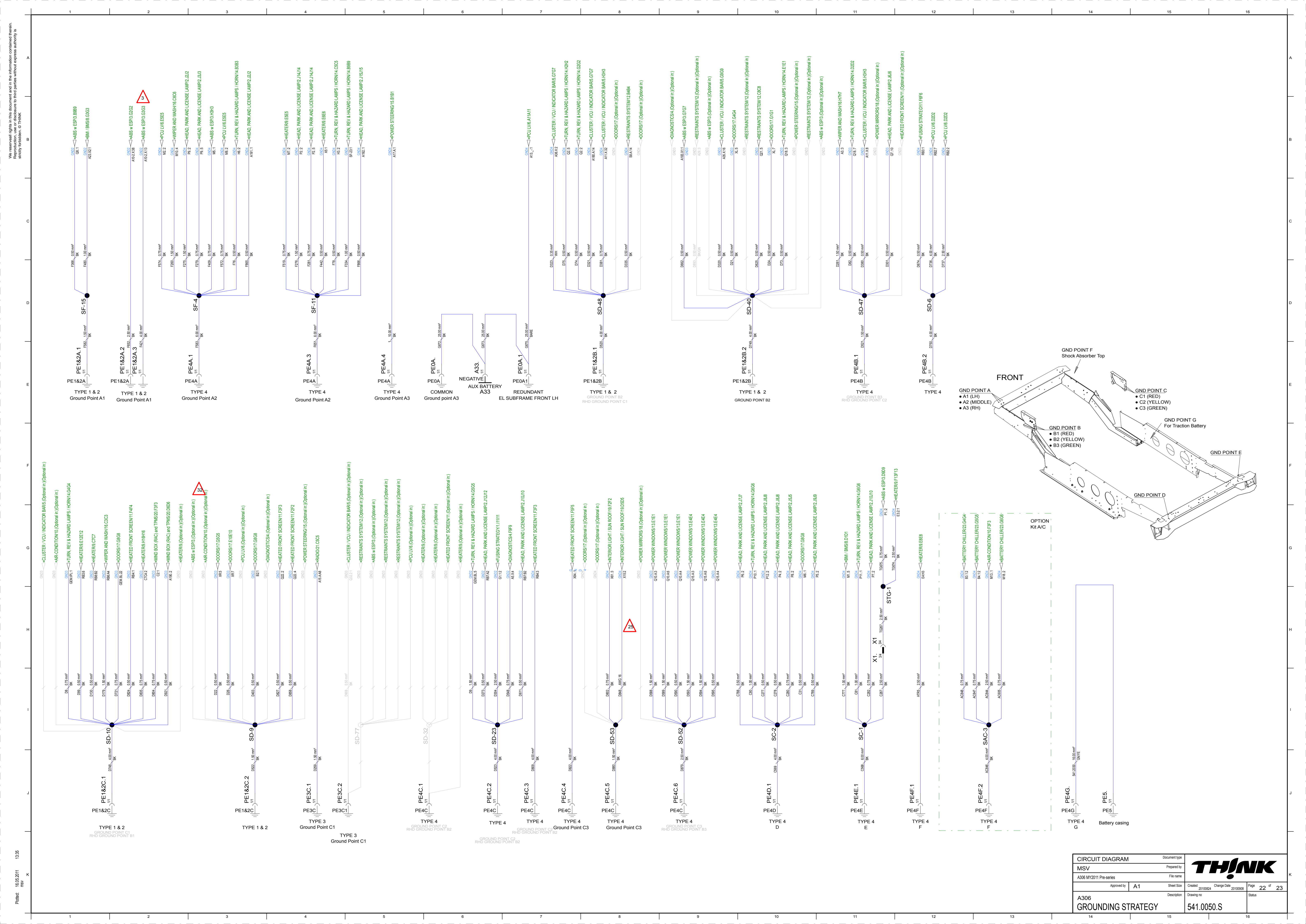
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A306 RADIO		Description	Page 21 of 23
		Drawing no	Status
		541.0050.S	



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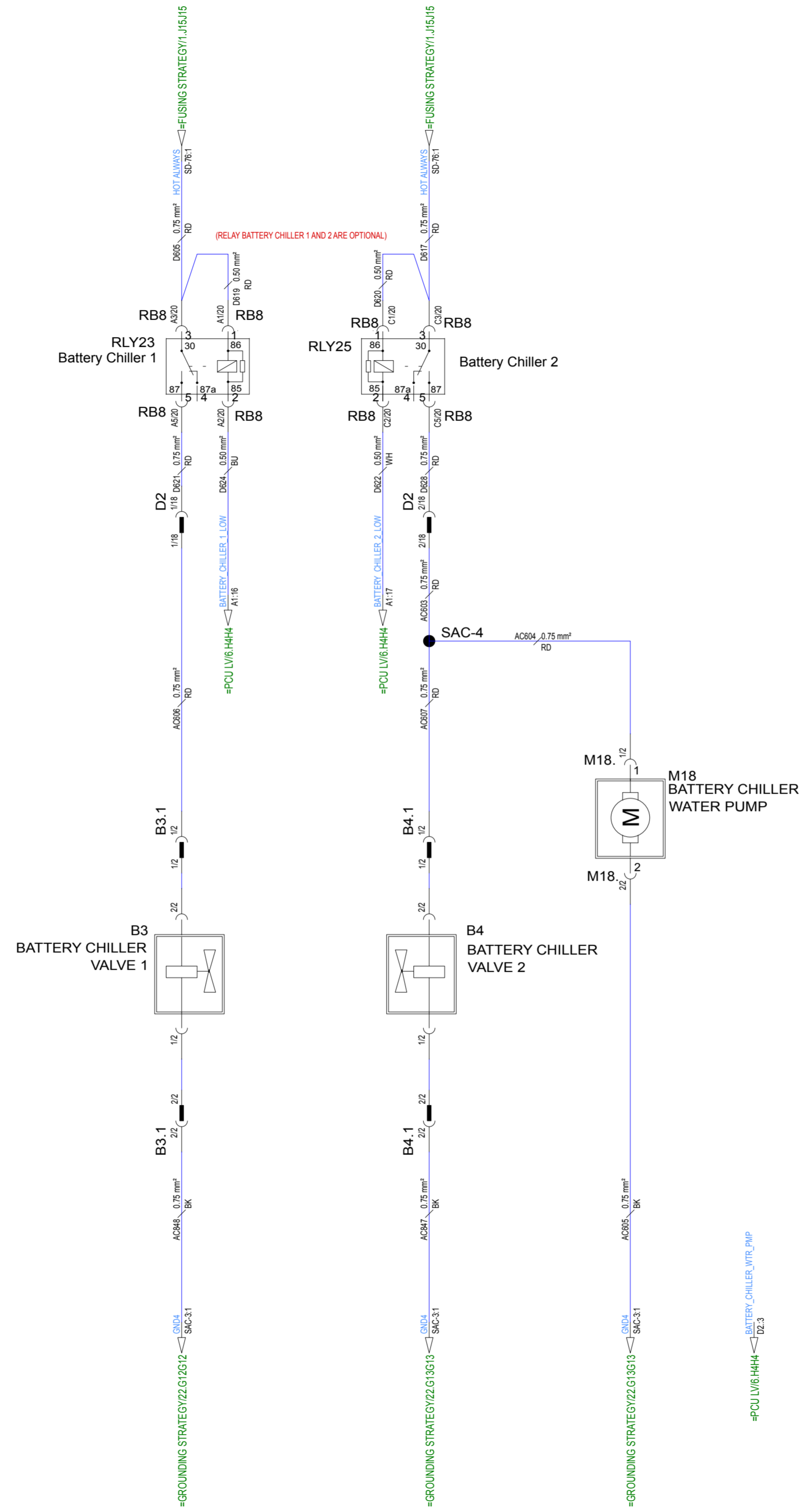


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Description		Change Date	
A306		20100904	
GROUNDING STRATEGY		Page 22 of 23	
541.0050.S		Status	

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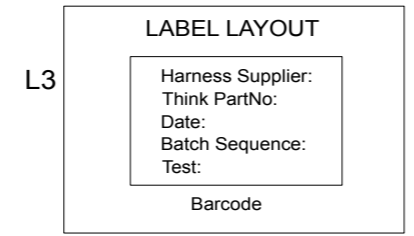
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MSV		Prepared by	
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Approved by	A2	Sheet Size	Created 07/09/2010 Change Date 20100921 Page 23 of 23
A306		Description	Drawing no
BATTERY CHILLER		541.0050.S	



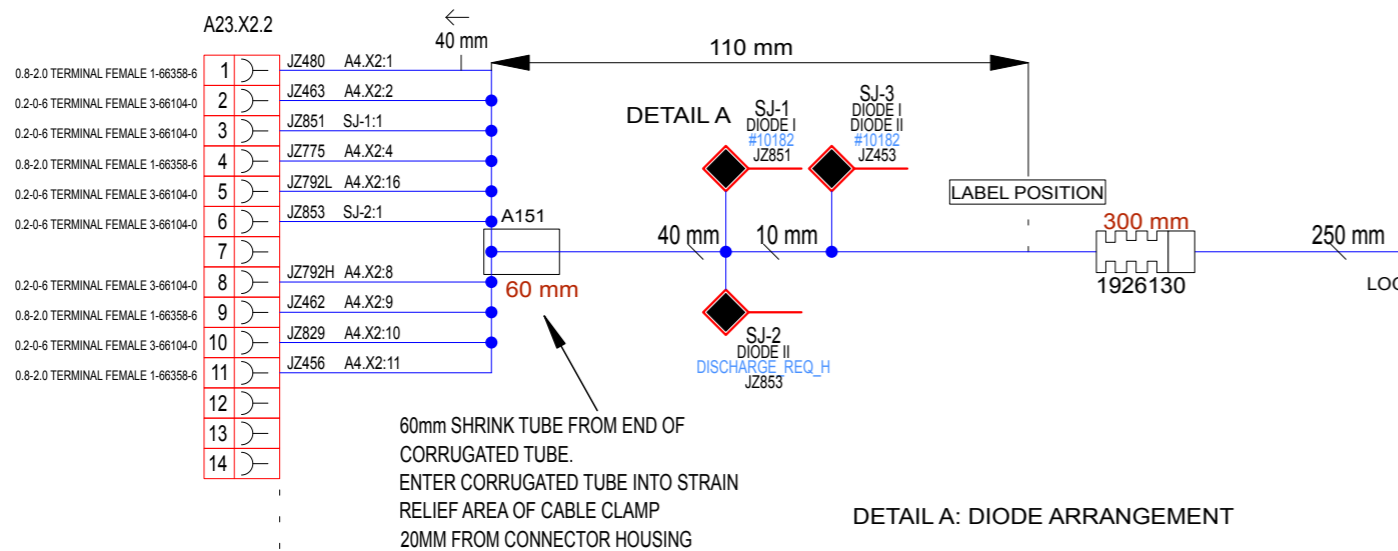
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
JZ453	R2	RD/YE	0.75 mm ²	SJ-3	1 /1.C41C4	A4.X2	3 /1.C51C5	340
JZ456	R2	RD	1.50 mm ²	A4.X2	11 /1.C51C5	A23.X2.2	11 /1.C21C2	420
JZ462	R2	WH	1.00 mm ²	A4.X2	9 /1.C51C5	A23.X2.2	9 /1.C21C2	420
JZ463	R2	RD	0.50 mm ²	A4.X2	2 /1.C51C5	A23.X2.2	2 /1.C21C2	420
JZ480	R2	BK	1.00 mm ²	A4.X2	1 /1.C51C5	A23.X2.2	1 /1.C21C2	420
JZ775	R2	WH	1.50 mm ²	A4.X2	4 /1.C51C5	A23.X2.2	4 /1.C21C2	420
JZ792H	R2	RD	0.50 mm ²	A4.X2	8 /1.C51C5	A23.X2.2	8 /1.C21C2	420
JZ792L	R2	BU	0.50 mm ²	A4.X2	16 /1.D51D5	A23.X2.2	5 /1.C21C2	420
JZ829	R2	WH	0.50 mm ²	A4.X2	10 /1.C51C5	A23.X2.2	10 /1.C21C2	420
JZ851	R2	RD/YE	0.50 mm ²	SJ-1	1 /1.C31C3	A23.X2.2	3 /1.C21C2	80
JZ853	R2	RD/YE	0.50 mm ²	SJ-2	1 /1.C31C3	A23.X2.2	6 /1.C21C2	80

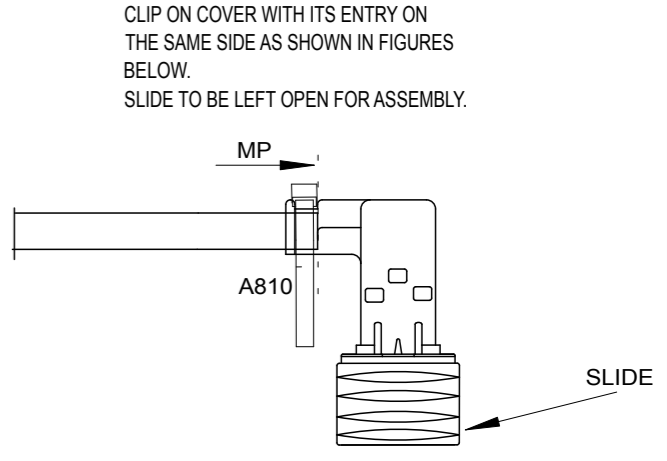
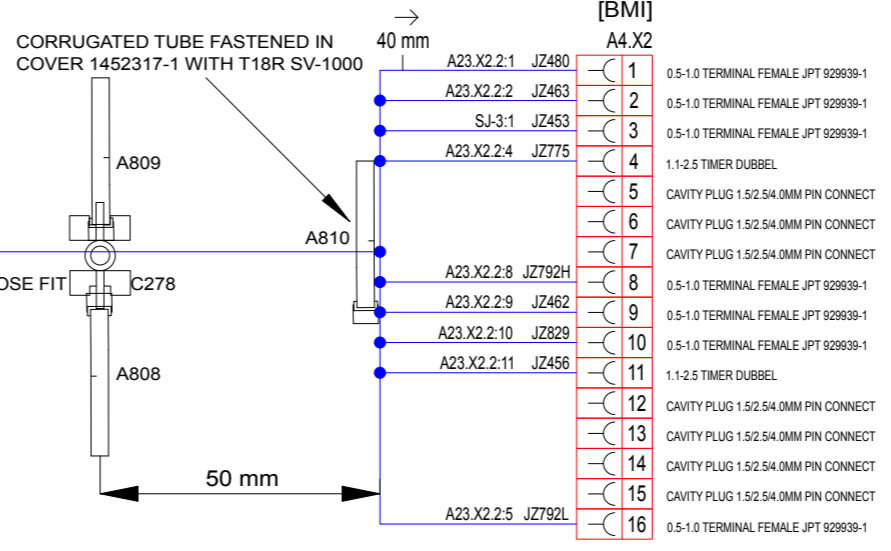
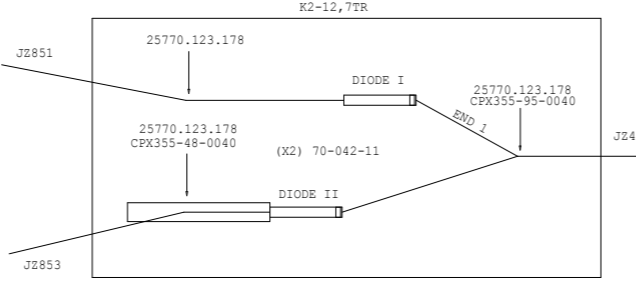
Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
SJ-3	1			SHRINK TUBE CPX355-95	
L3	1			Think Label Layout	
A23.X2.2	1	COLLINDER MARKSYSTEM	K2-12-7TR	TRANSPARENT SHRINK SLEEVE K2-12-7TR	
SJ-2	1	DSG-CANUSA	CPX355-48	SHRINK TUBE CPX355-48	
SJ-1,SJ-2	2	ELFA	70-042-11	DIODE 70-042-11	
A808,A809,A810	3	HELLERMANN	T18R SV-1000	CABLE TIE T18R SV-1000	
C278	1	HELLERMANN TYTON	150-56193	CLIPS T50SDSBS5-MC5-BK-D1	
SJ-1,SJ-2,SJ-3	3	LEAR	25770.123.178	SPLICE LEAR 25770.123.178	
A151	1	Raychem	RNF-3000-18/6-0-SP	SHRINK SLEEVE 18/6 WO GLUE BLACK	
	300	SCHLEMMER		CORRUGATED TUBE NW13 UNSLIT BLACK	
A23.X2.2	1	TYCO	1-206070-0	CABLE CLAMP SIZE17 CPC 1-206070-0	
A23.X2.2	4	TYCO	1-66358-6	0.8-1.4 TERMINAL FEMALE 1-66358-6	
A4.X2	1	TYCO	1-967242-1	JPT Rec.-HOUSING , 16POS. 1-967242-1	
A4.X2	1	TYCO	1452317-1	COVER F.16P JPT 1452317-1	
A23.X2.2	6	TYCO	3-66104-0	0.2-0-6 TERMINAL FEMALE 3-66104-0	
A23.X2.2	1	TYCO	796273-1	CONNECTOR 14PIN FEMALE 796273-1	
A4.X2	5	TYCO	828904-2	SWS ID1.2-2.1 JPT 828904-2	
A4.X2	4	TYCO	828905-1	SWS ID2.21-3.9 JPT 828905-1	
A4.X2	7	TYCO	828922-1	CAVITY PLUG 1.5/2.5/4.0MM PIN 828922-1	
A4.X2	2	TYCO	929937-1	1.5-2.5 TERMINAL FEMALE JPT 929937-1	
A4.X2	7	TYCO	929939-1	0.5-1.0 TERMINAL FEMALE JPT 929939-1	



[TO FRONT HARNESS]



DETAIL A: DIODE ARRANGEMENT



Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0.5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

SC Significant Characteristics

1 TEST INFORMATION:
ALL NETS SHOULD BE CHECKED FOR CONDUCTIVITY
AND SHORT CIRCUITS BETWEEN NETS

CABLES JZ792H AND JZ792L TWISTED 40±2 TURNS/m

B	T003	Placed clip on connector and removed from additional part		N/A	JJF	PBA
	T004	Added 2 x Clips T18R SV-1000 (Updated BOM)				
	T005	Added diode measurements				
	T006	Added in clip position for C278				
	T007	Added in label position				
	T008	Updated the detail and show K2-12,7TR, CPX35-48 & CPX35-95				
	T009	Added label detail (Updated BOM)				
	T010	Added a table for the SC detail				

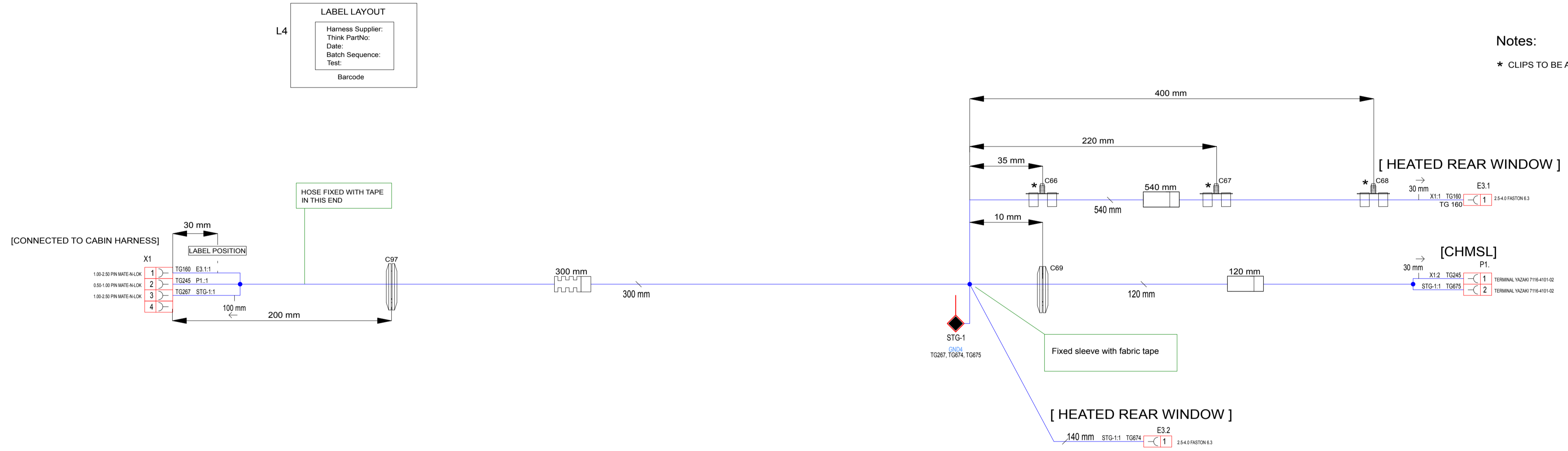
A	N/A	GEN-2 Version	14.12.2009	V3	MSV	EFP
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESS		Document type				
MSV		Prepared by				
A306 MY2011 Pre-series		File name				
Approved by		A3	Sheet Size	Created	Change Date	Page 1 of 1
A306		Description	Drawing no		Status	
JUMPER SIGNAL FRONT HARNESS TO BMI ZEBRA		541.1038.B		DRAFT		

Plotted: 16.05.2011 13:35 msv

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)
TG180	R2	BNBU	2.50 mm ²	X1	1 F1.F31F3	E3.1	1 F1.E121E12	970
TG245	R2	GN	0.75 mm ²	P1	1 F1.F121F12	X1	2 F1.F31F3	550
TG287	R2	BK	2.50 mm ²	STG-1	1 F1.F91F9	X1	3 F1.F31F3	400
TG274	R2	BK	2.50 mm ²	E3.2	1 F1.G1G1G10	STG-1	1 F1.F91F9	140
TG675	R2	BK	0.75 mm ²	P1	2 F1.F121F12	STG-1	1 F1.F91F9	150

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
	300			Corrugated Plastic Hose	
L4	1			Think Label Layout	
	660			Wrapping Hose	
STG-1	1		25775-123-176 SPLICE	GENERAL SPLICE	
C69,C67	2	TRELLEBORG SIGMA AB	941265	RUBBER SEAL BLACK	
E3.1,E3.2	2	TYCO ELECTRONICS LOGISTICS AG	154719-0	HOUSING 949181 8541229	
E3.1,E3.2	2	Tycoc	154717-4	2.5-4.0 FASTON 6.3	
E3.1,E3.2	2	Tycoc	154719-0	FASTON 6.3 HOUSING 1 PIN BLACK	
X1	1	Tycoc	163301-8	PIN MATE-N-LOK 0.50-1.00	
X1	2	Tycoc	163303-8	PIN MATE-N-LOK 1.00-2.50	
X1	1	Tycoc	925075-0	4 POL HOUSING MATE-N-LOK CAP	
C66,C67,C68	3	YAZAKI	7047-9606-30	INLINE FASTNER	
P1	2	YAZAKI	7116-4101-02	TERMINAL	
P1	1	YAZAKI	7283-6443-40	CONNECTOR 2 PIN FEMALE	



Notes:
 * CLIPS TO BE ATTACHED TO THE HARNESS BRANCH WITH PVC BLACK TAPE

Length tolerances

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

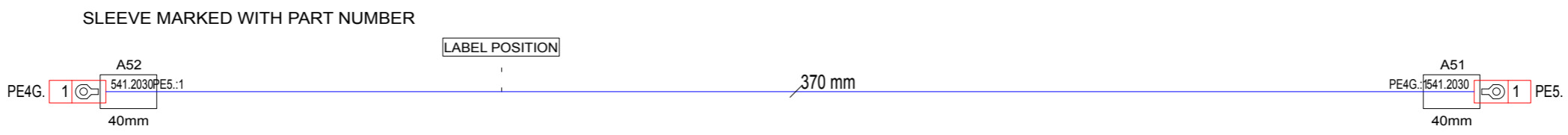
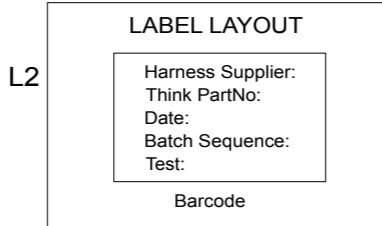
General tolerance for positioning of cable ties and clips: ±5 mm

F	T003	Wrong connector specified, correct connector		N/A	JJF	PBA
	T004	Changed label position and dimensions				
	T006	Added terminals to the rear window connectors				
	T007	Added correct terminals 163301-8 to X1 connector				
	T008	Changed drawing measurement format for splices				
	T009	Added label detail				
E	N/A	N/A	11.09.2007	1PP 07	MSV	EFI
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESS		Document type				
A306 MY2011 Pre-series		File name				
Approved by	A1	Sheet Size	Created	Change Date	Page	1 of 1
A306 JUMPER LIFTGATE		Description	17/11/2008		Status	DRAFT
		Drawing no	541.1040.F			

P0452: 16.03.2011 MSV

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
541.2030	R2	GN/YE	16.00 mm ²	PE5.	1 /1.C51C5	PE4G.	1 /1.C21C2	370	L2	1			Think Label Layout	
									A51,A52	2		CPX355-95	Crimp Sleeve CPX355-95	
									PE4G.,PE5.	2		KR16-6	RING TERMINAL M6 KR16-6	



Length tolerances

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance for positioning of cable ties and clips: ±5 mm

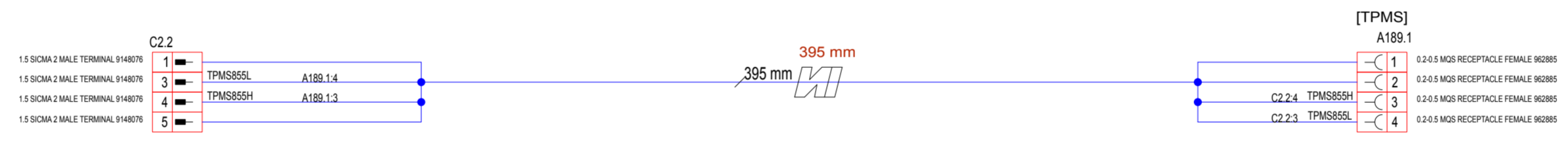
C	T001	Added label detail		N/A	JJF	PBA
B	N/A	Adjusted length, changed colour	11.09.2007	1PP 07	VFI	EFP
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESS		Document type	THINK			
A306 MY2011 Pre-series		Prepared by				
		File name				
Approved by		A3	Sheet Size	Created	Change Date	Page 1 of 1
A306 CABLE TRACTION BATTERY TO CHASSIS GROUND		Description	Drawing no		Status	
			541.2030.C		DRAFT	

Plotted: 16.05.2011 13:35 msy

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
TPMS804	R2	WH	0.50 mm²	C2.2	1 /1.E31E3	A189.1	2 /1.E71E7	395
TPMS855H	R2	WH	0.50 mm²	C2.2	5 /1.E31E3	A189.1	1 /1.E71E7	395
TPMS855L	R2	WH	0.50 mm²	C2.2	4 /1.E31E3	A189.1	3 /1.E71E7	395
TPMS808	R2	WH	0.50 mm²	C2.2	3 /1.E31E3	A189.1	4 /1.E71E7	395

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A189.1	1			Cover PBT-GF0	
A189.1	1			Sealing MVQ-30	
C2.2	1	FCI	211PL182S4004	CONNECTOR 18PIN MALE 211PL182S4004 YELLOW	
C2.2	4	FCI	9148076	MALE TERMINAL 1.5 SICMA 2	
	395	TESA	51608-09-15	TAPE TEXTILE TESA 51608-09-15	A
A189.1	1	TYCO	967640-1	CONNECTOR 4PIN FEMALE 967640-1	
A189.1	4	Tyco	962885	0.2-0.5 MQS RECEPTACLE FEMALE 962885	



CABLES TPMS855H and TPMS855L TWISTED 40 +/- 2 TURNS/m

Nominal length	Tolerances					
	Partial dim.		Total dim.		Positional dim.	
	+	-	+	-		
- 500	15	5	20	0	±10	
>500 - 1500	25	5	30	0	±10	
>1500 - 4000	30	10	50	0	±15	
>4000 - 5000	30	10	100	0	±20	
>5000	2%	0,5%	2%	0	±20	

General tolerance positioning of cable ties and clips: ±5 mm

Rev.	Description	Change Req.	Date	Prepared	Approved
A	New function TPMS for US market	US	20100903	MSV	-

HARNES		Document type	THINK		
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A2	Sheet Size	Created	Change Date	Page
			12/07/2010	20100903	1 of 1
A306		Description	Drawing no	Status	
HARNES TPMS FRONT			541.2045.A	DRAFT	

Plotted: 16.05.2011 13:35 msv

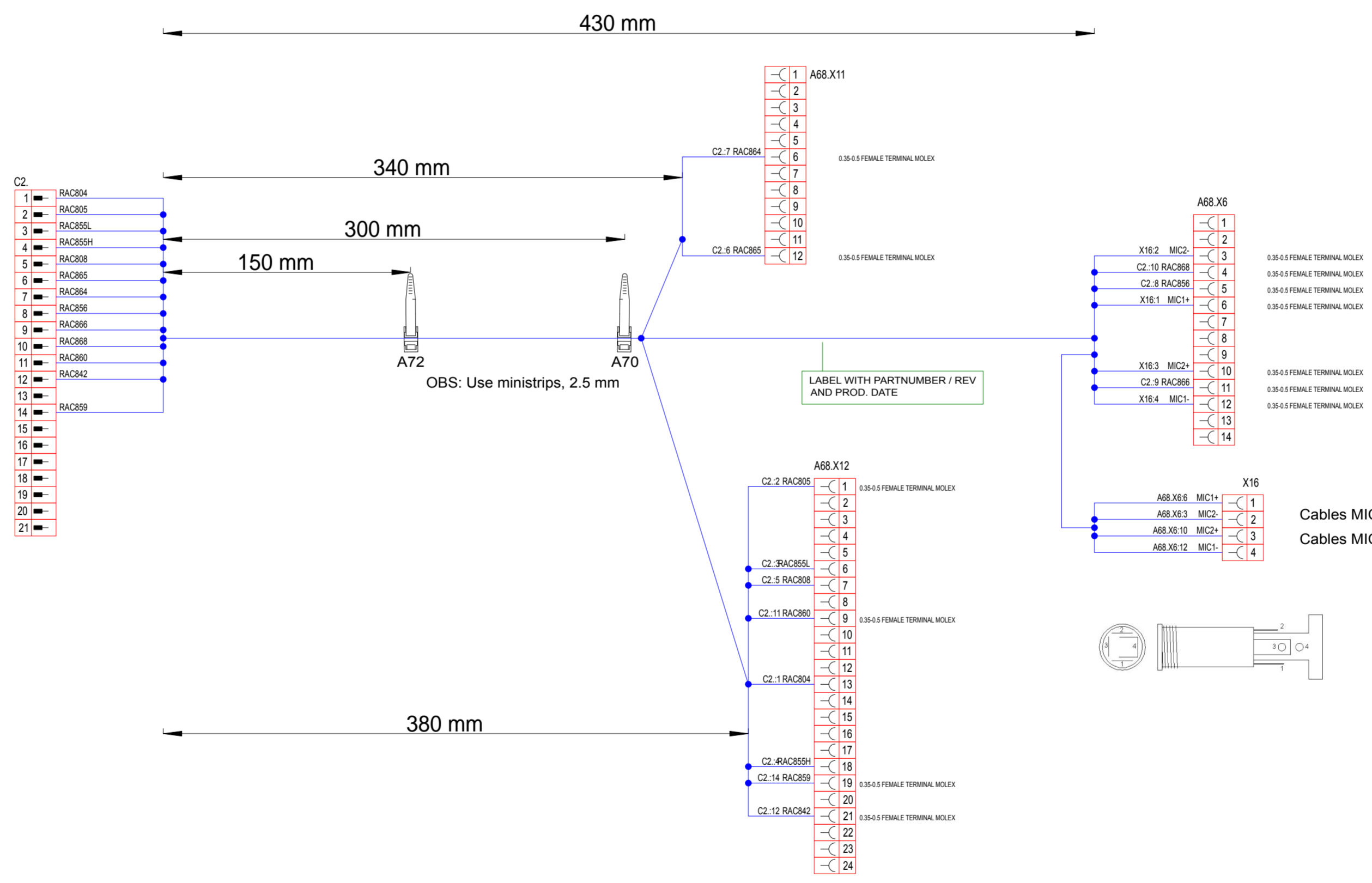
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)
MIC1-	R2	BK	0.35 mm ²	A68.X6	12	/1.E81E8	X16	4
MIC1+	R2	RD	0.35 mm ²	A68.X6	6	/1.D81D8	X16	1
MIC2-	R2	BN	0.35 mm ²	A68.X6	3	/1.D81D8	X16	2
MIC2+	R2	GN	0.35 mm ²	A68.X6	10	/1.E81E8	X16	3
RAC804	R2	WH	0.50 mm ²	A68.X12	13	/1.F61F6	C2.	1
RAC805	R2	WH	0.50 mm ²	A68.X12	1	/1.E61E6	C2.	2
RAC808	R2	WH	0.50 mm ²	A68.X12	7	/1.F61F6	C2.	5
RAC842	R2	WH	0.50 mm ²	A68.X12	21	/1.G61G6	C2.	12
RAC855H	R2	WH	0.50 mm ²	A68.X12	18	/1.F61F6	C2.	4
RAC855L	R2	WH	0.50 mm ²	A68.X12	6	/1.F61F6	C2.	3
RAC856	R2	WH	0.50 mm ²	A68.X6	5	/1.D81D8	C2.	8
RAC859	R2	WH	0.50 mm ²	A68.X12	19	/1.G61G6	C2.	14
RAC860	R2	WH	0.50 mm ²	A68.X12	9	/1.F61F6	C2.	11
RAC864	R2	WH	0.50 mm ²	A68.X11	6	/1.D61D6	C2.	7
RAC865	R2	WH	0.50 mm ²	A68.X11	12	/1.D61D6	C2.	6
RAC866	R2	WH	0.50 mm ²	A68.X6	11	/1.E81E8	C2.	9
RAC868	R2	WH	0.50 mm ²	A68.X6	4	/1.D81D8	C2.	10

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A70,A72	2	CHIP MARKETING AB/JETPRESS LIMITED	CAT054-BLK	Strips	
A68.X11	1	MOLEX	43025-1200		
A68.X6	1	MOLEX	43025-1400		
A68.X12	1	MOLEX	43025-2400		
A68.X11,A68.X12,A68.X6	17	MOLEX	43031-0001	0.35-0.5 TERMINAL FEMALE MICROFIT	
X16	1	REMTAK.COM	CONNIJS25C08573	EXTENSION JACK SOCKET 4 POLE 2.5MM	
X17	13	TYCO	1-962841-1	0.5-1.0 TERMINAL MALE JPT	
X17	1	TYCO	2-967630-1	CONNECTOR 21PIN MALE 2-967630-1	

LABEL LAYOUT

Think PartNo
Think
Manufacturer Part No



Cables MIC2+ and MIC2- twisted 40 +/- 2 Turns/m
Cables MIC1+ and MIC1- twisted 40 +/- 2 Turns/m

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0.5%	2%	0	±20

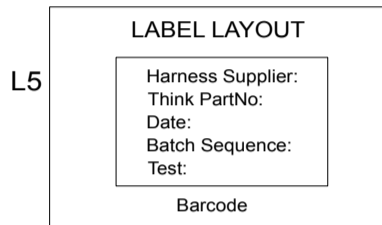
General tolerance positioning of cable ties and clips: ±5 mm

C	Added new mic-connector+ removed two nets	-	20/02/2007	OBJ	EFP
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNES		Document type		THINK	
OBJ		Prepared by			
A306 MY2011 Pre-series		File name			
EFP	Approved by	A2	Sheet Size	Created	Change Date
A306		Description		Page	1 of 1
REMOTE ACQUISITION SYSTEM HARNESS		Drawing no		541.2050.F	Status
				R	

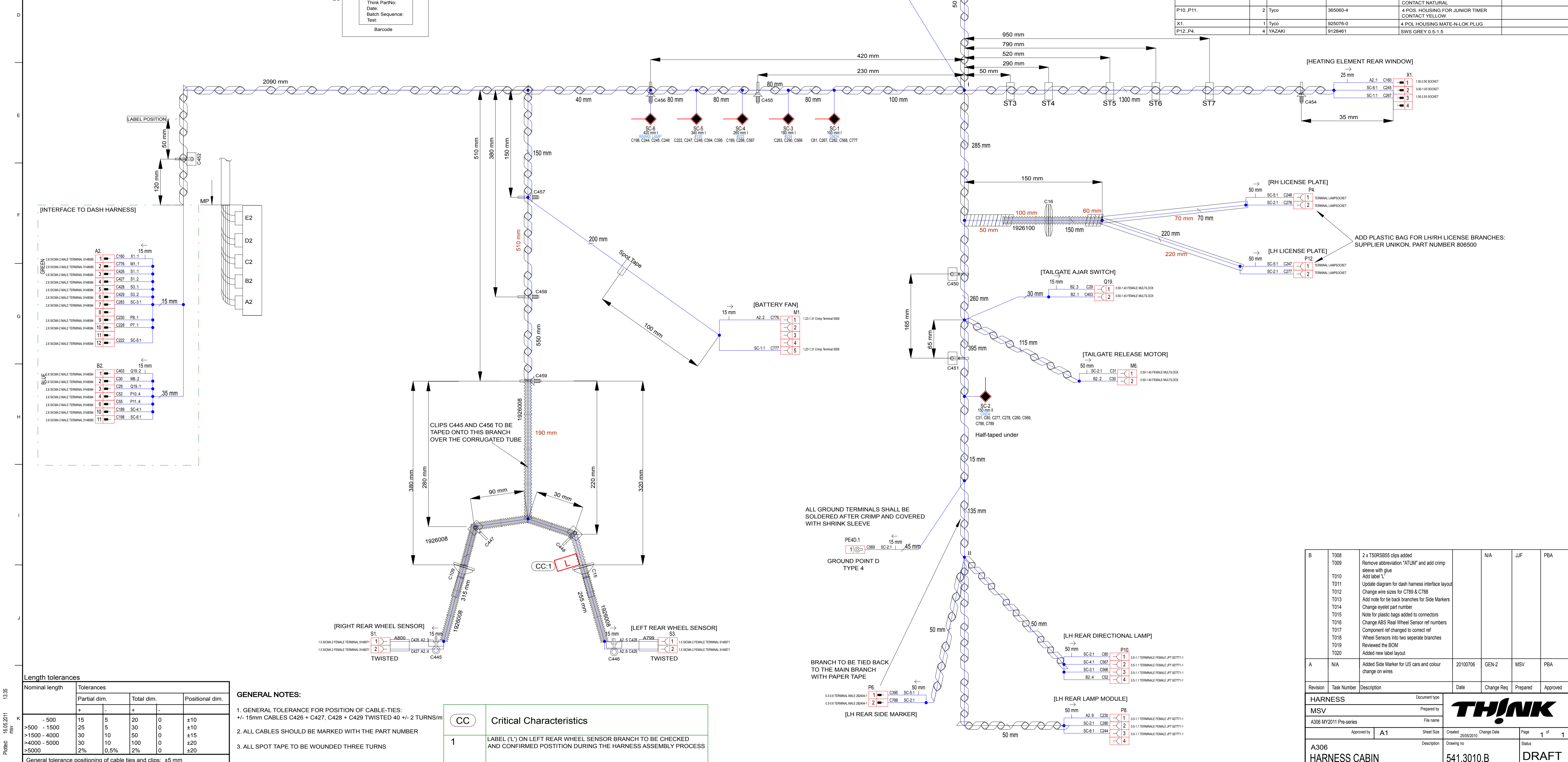
Plotted: 16.05.2011 13:35 msv

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)
C29	R2	WH	0.50 mm²	D19	1 J1.C21C12	B2	3 J1.H1H1	3190
C30	R2	GN	0.50 mm²	M6	2 J1.H2H12	B2	2 J1.H1H1	3310
C31	R2	BK	0.50 mm²	M6	1 J1.H2H12	SC-2	1 J1.H1H10	560
C32	R2	GNWH	0.75 mm²	B2	4 J1.H1H1	P10	4 J1.K1K12	3790
C35	R2	GNVE	0.75 mm²	P11	4 J1.C1C12	B2	6 J1.H1H1	2750
C40	R2	BK	1.00 mm²	SC-2	1 J1.H1H10	P10	1 J1.J1J12	250
C41	R2	BK	1.00 mm²	SC-1	1 J1.E1E19	P11	1 J1.B1B12	250
C180	R2	RDBU	2.50 mm²	A2	1 J1.F1F1	X1	1 J1.E1E15	3905
C189	R2	RDBU	0.75 mm²	SC-4	1 J1.E1E18	B2	10 J1.H1H1	2840
C198	R2	RDYE	1.00 mm²	B2	11 J1.H1H1	SC-6	1 J1.E1E7	2180
C222	R2	RDYE	0.75 mm²	A2	12 J1.G1G1	SC-5	1 J1.E1E7	2240
C228	R2	BU	0.50 mm²	P7	1 J1.B1B11	A2	10 J1.G1G1	2730
C230	R2	GN	0.50 mm²	P8	1 J1.K1K12	A2	9 J1.G1G1	3770
C244	R2	RDYE	0.75 mm²	P8	3 J1.K1K12	SC-6	1 J1.E1E7	1610
C245	R2	RDYE	0.75 mm²	SC-6	1 J1.E1E7	X1	2 J1.E1E15	1745
C246	R2	RDYE	0.75 mm²	P7	3 J1.B1B11	SC-6	1 J1.E1E7	670
C247	R2	RDYE	0.50 mm²	SC-5	1 J1.E1E7	P12	1 J1.G1G14	1045
C248	R2	RDYE	0.50 mm²	SC-5	1 J1.E1E7	P4	1 J1.F1F14	895
C287	R2	BK	2.50 mm²	X1	3 J1.E1E18	SC-1	1 J1.E1E9	1425
C277	R2	BK	0.50 mm²	SC-2	1 J1.H1H10	P12	2 J1.G1G14	1075
C278	R2	BK	0.50 mm²	SC-2	1 J1.H1H10	P4	2 J1.F1F14	875
C280	R2	BK	0.75 mm²	P8	2 J1.K1K12	SC-2	1 J1.H1H10	250
C282	R2	BK	0.75 mm²	P7	2 J1.B1B11	SC-1	1 J1.E1E9	250
C283	R2	GNVE	0.75 mm²	SC-3	1 J1.E1E8	A2	7 J1.G1G1	2400
C288	R2	RDBU	0.75 mm²	SC-4	1 J1.E1E8	P11	2 J1.C1C12	410
C290	R2	GNVE	0.75 mm²	SC-3	1 J1.E1E8	P11	3 J1.C1C12	330
C394	R2	RDYE	0.50 mm²	SC-5	1 J1.E1E7	P5	1 J1.B1B10	460
C395	R2	RDYE	0.50 mm²	SC-5	1 J1.E1E7	P6	1 J1.K1K19	1530
C403	R2	BKBU	0.50 mm²	C19	2 J1.C1C12	B2	1 J1.H1H1	3190
C426	R2	BLWH	0.50 mm²	A2	3 J1.G1G1	S1	1 J1.J1J14	3180
C427	R2	BU	0.50 mm²	A2	4 J1.G1G1	S1	2 J1.J1J14	3180
C428	R2	GNVE	0.50 mm²	A2	5 J1.G1G1	S3	1 J1.J1J17	3180
C429	R2	BN	0.50 mm²	A2	6 J1.G1G1	S3	2 J1.J1J17	3180
C566	R2	GNVE	0.75 mm²	SC-3	1 J1.E1E8	P10	3 J1.K1K12	1370
C587	R2	RDBU	0.75 mm²	SC-4	1 J1.E1E8	P10	2 J1.J1J12	1450
C588	R2	BK	6.00 mm²	PE4E.1	1 J1.C1C19	SC-1	1 J1.E1E9	160
C589	R2	BK	4.00 mm²	PE4D.1	1 J1.B1B19	SC-2	1 J1.H1H10	75
C776	R2	WH	1.00 mm²	M1	1 J1.C1C19	A2	2 J1.C1C1	845
C777	R2	BK	1.00 mm²	M1	5 J1.B1B18	SC-1	1 J1.E1E9	710
C788	R2	BK	0.50 mm²	P6	2 J1.K1K19	SC-2	1 J1.H1H10	200
C789	R2	BK	0.50 mm²	P5	2 J1.B1B10	SC-2	1 J1.H1H10	1040



Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
SC-1,SC-2,SC-3,SC-4,SC-5,SC-6	6			GENERAL SPLICE	
	5915			Loosely Wound Tape	
P12_P4	2			Plastic Bag UNIKON 806500	
ST3,ST4,ST5,ST6,ST7	5			Spot Tape Yellow 12mm Width	
	0			Spot Tape	
L5	4			Think Label Layout	
	110			Tightly Wound Tape	
	290			WRAPPING HOSE	
C109,C15	2	ESMA FORSAL INNGES AB	4666921	ID62989 GENOMFORING SAAB	
B2	1	FCI	211BC056004	FRAME FEM. COMPL. 211BC056004 BLUE	
S1,S3	4	FCI	211CC2S1120	0.35-0.75 TERMINAL FEMALE 211CC2S1120	
S1,S3	2	FCI	211PC022S6049	CONNECTOR 2PIN FEMALE 211PC022S6049	
A2,B2	14	FCI	9148084	0.3-1.0 MALE TERMINAL 2.8 SICMA 2	
A2,B2	3	FCI	9148085	1.0-3.0 MALE TERMINAL 2.8 SICMA 2	
B2	1	FCI	9148280	HOUSING 12 PIN BLUE 211PL123S6004	
A2	1	FCI	9148281	HOUSING 12 PIN GREEN 211PL123S5004	
C447,C448,C450,C451,C452	5	HELLERMANN	CBT30MR	CLIP EDGE W/CABLE TIE CBT30MR	
C445,C446	2	HELLERMANN TYTON	T50RSB55 N66-BK	WELD STUD FIXING THE BLACK	
C454,C455,C456,C457,C458,C459	6	HELLERMANN TYTON	T50R-F77	CLIPS T50R-F77 Black	
M1	2	Molex	39-00-0077	Mini-FIT™ Crimp Terminal 5556, 18 AWG, Reel, Brass, Tin (Sn)	
M1	1	Molex	39-01-4050	Receptacle Housing 5 PIN	
PE4D,1,PE4E,1	2	Natco	BM 970794	RING TERMINAL M6	
A790,A800	2	Raychem	Atum-19/6-0	Crimp Sleeve ATUM19/6-Black W/Glue	
A790	760	SCHLEMMER	1926008	CORRUGATED TUBE NW8.5 UNSLIT BLACK	
	100	SCHLEMMER	1926100	CORRUGATED TUBE NW10 UNSLIT BLACK	
C16	1	TRELLEBORG SIGMA AB	941265	RUBBER SEAL BLACK	
P12_P4	4	TRW	2953523799	TERMINAL LAMP SOCKET	
P12_P4	2	TRW AEC GMBH & CO. KG	96FG-13K370-AA	PROT LAMP HOUSING	
P5_P6	2	TYCO	282104-1	CONNECTOR 2PIN MALE SUPERSEAL 282104-1	
P5_P6	4	TYCO	282404-1	0.3-0.6 TERMINAL MALE 282404-1	
P10,P11,P7,P8	14	TYCO	927771-1	0.5-1.1 TERMINAL FEMALE JPT 927771-1	
X1	1	Tycoc	163300-8	SOCKET 0.50-1.00	
X1	2	Tycoc	163302-8	SOCKET 1.00-2.50	
M6_Q19	4	Tycoc	173631-1	FEMALE MULTILOCK 0.50-1.40	
M6	1	Tycoc	174463-1	2POS. PLUG HSG(W/W) MULTILOCK WHITE	
Q19	1	Tycoc	174463-2	2POS. PLUG HSG(W/W) MULTILOCK BLACK	
P5_P6	4	Tycoc	281934-2	SWS SUPERSEAL 1.5 D1 80-2.40	
P7_P8	2	Tycoc	365060-1	4 POS. HOUSING FOR JUNIOR TIMER CONTACT NATURAL	
P10,P11	2	Tycoc	365060-4	4 POS. HOUSING FOR JUNIOR TIMER CONTACT YELLOW	
X1	1	Tycoc	925076-0	4 POL HOUSING MATE-N-LOCK PLUG	
P12_P4	4	YAZAKI	9128461	SWS GREY 0.5-1.5	



Length tolerances

Nominal length	Tolerances		
Partial dim.	Total dim.	Positional dim.	
>500 - 1500	± 5	± 20	± 10
>1500 - 4000	± 5	± 30	± 10
>4000 - 5000	± 30	± 50	± 15
>5000	± 30	± 100	± 20
	± 2%	± 2%	± 2%

General tolerance positioning of cable ties and clips: ±5 mm

- GENERAL NOTES:**
1. GENERAL TOLERANCE FOR POSITION OF CABLE-TIES: ±15mm CABLES C426 + C427, C428 + C429 TWISTED 40 +/- 2 TURNS/m
 2. ALL CABLES SHOULD BE MARKED WITH THE PART NUMBER
 3. ALL SPOT TAPE TO BE WOUND THREE TURNS

CC	Critical Characteristics
1	LABEL 'L' ON LEFT REAR WHEEL SENSOR BRANCH TO BE CHECKED AND CONFIRMED POSITION DURING THE HARNESS ASSEMBLY PROCESS

B	T008	2 x T50RSB55 clips added	N/A	JUF	PBA	
	T009	Remove abbreviation "ATUM" and add crimp sleeve with glue				
	T010	Add label 'L'				
	T011	Update diagram for dash harness interface layout				
	T012	Change wire sizes for C789 & C788				
	T013	Add note for tie back branches for Side Markers				
	T014	Change eyelet part number				
	T015	Note for plastic bags added to connectors				
	T016	Change ABS Reel Wheel Sensor ref numbers				
	T017	Component ref changed to correct				
	T018	Wheel Sensors into two separate branches				
	T019	Reviewed the BOM				
	T020	Added new label layout				
A	N/A	Added Side Marker for US cars and colour change on wires	20100706	GEN-2	MSV PBA	
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESS		Document type				
MSV		Prepared by				
A306 MY2011 Pre-series		File name				
Approved by	A1	Sheet Size	Created	Change Date	Page	1 of 1
A306 HARNESS CABIN		Description	Drawing no	541.3010.B	Status	DRAFT

13:35

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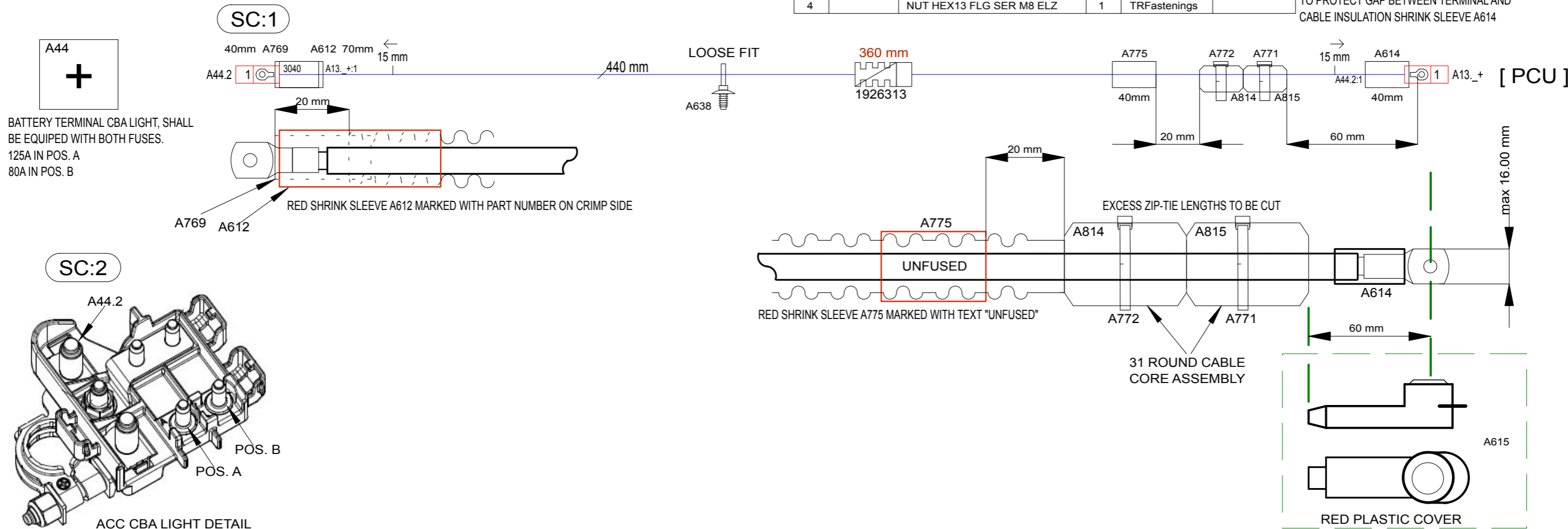
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
3040	SK90	RD	25.00 mm ²	A13_+	1 /1.C61C6	A44.2	1 /1.C21C2	470

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A638	1	HELLERMANN	T50R/FT7	Cable Tie with Pine Tree Clip	
A44	1			Plastic Cover 0300579	
A13_+	1		KR25-6F	RING TERMINAL M6 KR25-6F	
A44.2	1		KR25-8	RING TERMINAL M8	
A814,A815	2	FAIR-RITE PRODUCTS CORP	0431164281	LOWER & BROADBAND FREQUENCIES 1-300MHz (31 MATERIAL)	
A771,A772	2	HELLERMANN TYTON	CABLE TIE T30L SV-500	CABLE TIE T30L SV-500	
A44	1	MTA	0300515 (AQ Part No. 0300575)	CBA light	
A614,A769	2	Raychem	Atum-19/6-0	Crimp Sleeve ATUM19/6-Black W/Glue	
	360	SCHLEMMER	1926313	CORRUGATED TUBE NW13 SLIT BLACK - 1926313	
A612,A775	2	TIBE AB	CPX-160R	Crimp Sleeve CPX-160R	
A615	1	VTE Europe	224N2V02	Red Plastic Cover 224N2V02	

SUPPLEMENTARY PARTS FOR CBA LIGHT ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY	SUPPLIER	SUPPLIER PART NO.
1	543.2131.A	FUSE 125A MIDI	1	MTA	0702125
2	543.2121.A	FUSE 80A MIDI	1	MTA	0702080
3		NUT HEX8 FLG NYLOCK M5 ELZ	4	TRFastenings	
4		NUT HEX13 FLG SER M8 ELZ	1	TRFastenings	

TO PROTECT GAP BETWEEN TERMINAL AND CABLE INSULATION SHRINK SLEEVE A614



Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

SC	Significant Characteristics
1	M8 NUT PULLED WITH TORQUE 20Nm +/-2Nm
2	M5 NUT PULLED WITH TORQUE FROM 3.2Nm TO 4.8Nm

B	T001 T002 T003	Added CBA Light detail and SC:2 Add Ferrites on harness BOM corrections		N/A	JJF	PBA
A	N/A	New Distribution Box CBA Light	20100113	V3	MSV	EFP
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESS		Document type				
MSV		Prepared by				
A306 MY2011 Pre-series		File name				
Approved by		A3	Sheet Size	Created	Change Date	Page 1 of 1
A306 CABLE AUX BATT (+) TO AUX MAIN FUSE		Description	Drawing no	541.3040.B		Status DRAFT

Plotted: 16.05.2011 13:35 msv

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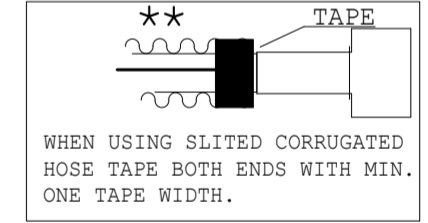
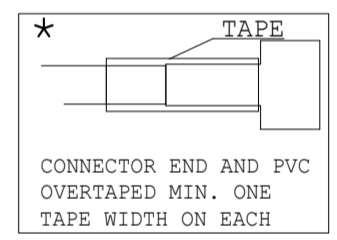
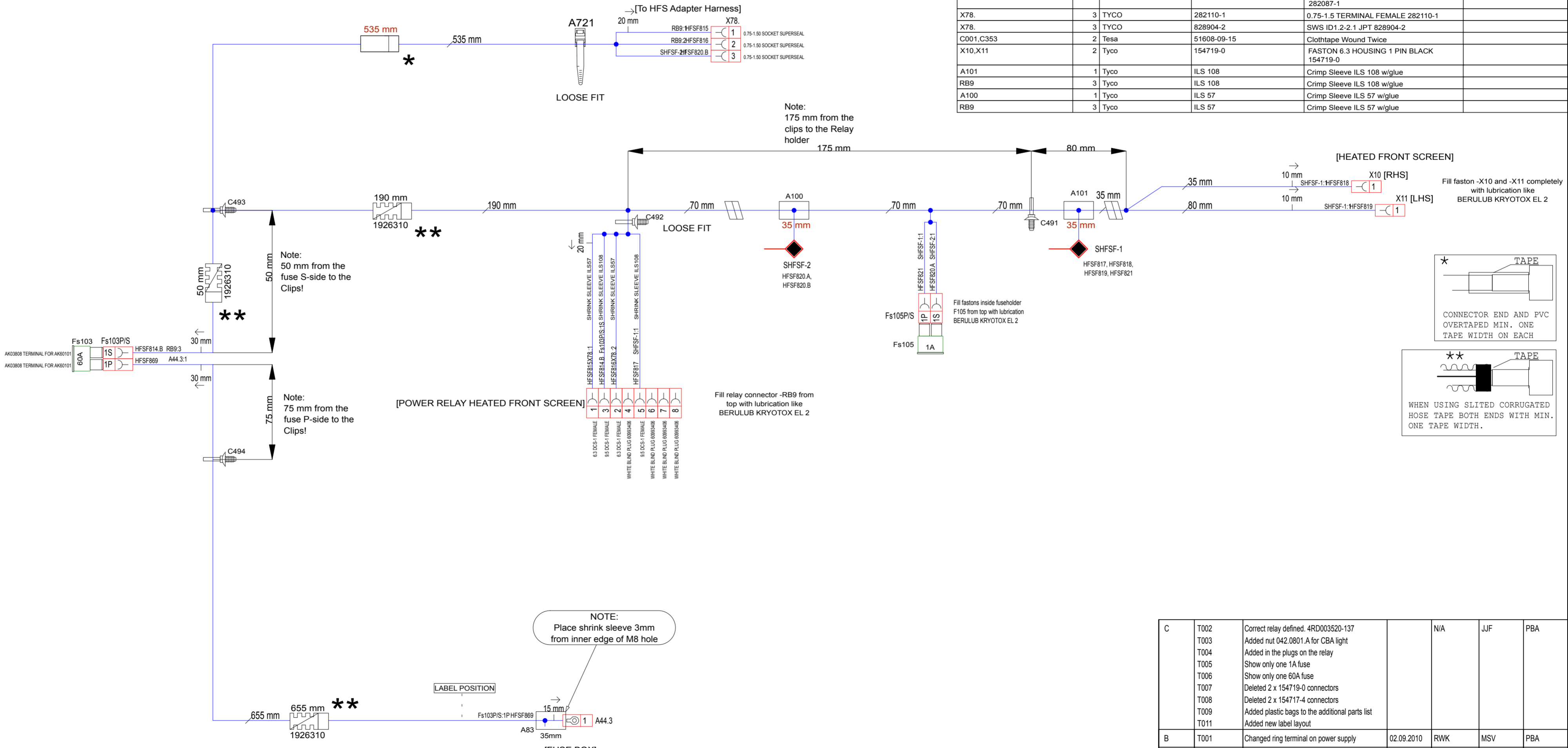
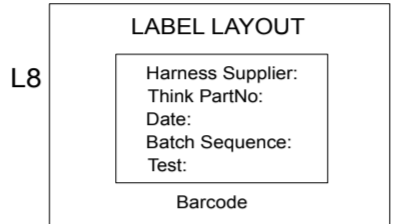
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)	
HFSF814.B	R2	RD	10.00 mm ²	RB9	3	/1.E5	Fs103P/S	1S	290
HFSF815	R2	BU	0.75 mm ²	-X78.	1	/1.C5	RB9	1	765
HFSF816	R2	BK	0.75 mm ²	RB9	2	/1.E5	-X78.	2	765
HFSF817	R2	RD	10.00 mm ²	SHFSF-1	1	/1.D8	RB9	5	230
HFSF818	R2	RD	4.00 mm ²	SHFSF-1	1	/1.D8	X10	1	80
HFSF819	R2	RD	4.00 mm ²	SHFSF-1	1	/1.D8	X11	1	125
HFSF820.A	AWG	BK	AWG 16	SHFSF-2	1	/1.D6	Fs105P/S	1S	70
HFSF820.B	R2	VT	0.75 mm ²	SHFSF-2	1	/1.D6	-X78.	3	795
HFSF821	AWG	BK	AWG 16	SHFSF-1	1	/1.D8	Fs105P/S	1P	70
HFSF869	R2	RD	10.00 mm ²	Fs103P/S	1P	/1.E2	A44.3	1	700

Wires are part of FHAC001 ATO fuseholder

QTY	SUPPLIER	PART #	DESCRIPTION
1	TR FASTENINGS (BUFAB)	SCREW FUSEHOLDER 145838040301	DIN7985 M4X30 W/TORX PAN HEAD, THINK CPL4 (480 h BEFORE RUST)
1	HELLA	4RD003520-137	RELAY 12V/30A
1	TYCO	1-1414122-0	POWER RELAY 12V
1	LITTELFUSE	297020	MINIFUSE 20A YELLOW
1	TR FASTENINGS	145838060161	PAN TXS30 SCR DIN7985 M6X 16 8.8 ZnCr3+TC Bk
1	HELLERMANN	151-15800	FLAT CABLE CLIPS
1	TR FASTENINGS	042.0801.A	NUT FOR CBA LIGHT

PUT THE HARNESS AND ALL THE ADDITIONAL PARTS IN THE PLASTIC BAG ACCORDING TO THE PACKING INSTRUCTION

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
Fs103P/S	2			A505502 SWS FOR TERMINAL AK03808	
SHFSF-1,SHFSF-2	2			GENERAL SPLICE	
L8	1			Think Label Layout	
	535			Wrapping Hose	
A44.3	1		KR10-8	RING TERMINAL M8	
Fs103P/S	1	AK	AK601 01	Fuseholder In-Line MAXI Splashproof AK	
Fs103P/S	2	AK INDUSTRIES	AK03808	TERMINAL FOR AK60101	
Fs103P/S	2	AK INDUSTRIES	AK05502	SWS FOR TERMINAL AK03808	
Fs105P/S, RB9, X10, X11	8	CARL BECHEM GMBH	KRYOTOX EL 2	BERULUB KRYOTOX EL 2	
A721	1	CHIP MARKETING AB/JETPRESS LIMITED	CAT054-BLK	Strips	
RB9	1	FCI	6 043 10 11	8 SEALED RELAY SOCKET	
RB9	2	FCI	60040031	DCS-1 6.3 0.5-1.0MM	
RB9	2	FCI	60070271	DCS-1 9.5 6.0-10.0MM	
RB9	2	FCI	60992607	GREEN SEALING FOR 0.75mm 60992607	
RB9	2	FCI	60993304	YELLOW SEALING FOR 10.0mm 60993304	
RB9	4	FCI	60993406	WHITE BLIND PLUG 60993406	
C330, C331, C332, C356	4	HELLERMANN	T50R-FT7 BLACK	CLIPS T50R-FT7 BLACK	
Fs103	1	LITTELFUSE	299060	MAXIFUSE 60AMP.299060	
Fs105	1	Littelfuse	0257001	ATOFUSE 1A	
Fs105P/S	1	Littelfuse	FHAC0001	Fuseholder In-Line ATO Splashproof	
A83	1	Raychem	Altum-9/3-0	Crimp Sleeve ATUM 9/3 BLACK w/glue	
	895	SCHLEMMER	1926310	CORRUGATED TUBE NW10 SLIT BLACK	
X78.	1	TYCO	282087-1	CONNECTOR 3PIN FEMALE SUPERSEAL 282087-1	
X78.	3	TYCO	282110-1	0.75-1.5 TERMINAL FEMALE 282110-1	
X78.	3	TYCO	828904-2	SWS ID1.2-2.1 JPT 828904-2	
C001, C353	2	Tesa	51608-09-15	Clohtape Wound Twice	
X10, X11	2	Tyco	154719-0	FASTON 6.3 HOUSING 1 PIN BLACK 154719-0	
A101	1	Tyco	ILS 108	Crimp Sleeve ILS 108 w/glue	
RB9	3	Tyco	ILS 108	Crimp Sleeve ILS 108 w/glue	
A100	1	Tyco	ILS 57	Crimp Sleeve ILS 57 w/glue	
RB9	3	Tyco	ILS 57	Crimp Sleeve ILS 57 w/glue	



Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0.5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

Revision	Task Number	Description	Date	Change Req	Prepared	Approved
C	T002	Correct relay defined. 4RD003520-137		N/A	JJF	PBA
	T003	Added nut 042.0801.A for CBA light				
	T004	Added in the plugs on the relay				
	T005	Show only one 1A fuse				
	T006	Show only one 60A fuse				
	T007	Deleted 2 x 154719-0 connectors				
	T008	Deleted 2 x 154717-4 connectors				
	T009	Added plastic bags to the additional parts list				
	T011	Added new label layout				
B	T001	Changed ring terminal on power supply	02.09.2010	RWK	MSV	PBA
A	N/A	New drawing	21.04.2010	CP46	MSV	EFP

HARNESS		Document type			
PBR		Prepared by	THINK		
A306 MY2011 Pre-series		File name			
Approved by	A2	Sheet Size	Created	Change Date	Page
			20091215	20100716	1 of 1
A306		Description	Drawing no		Status
KIT HARNESS HEATED FRONT SCREEN (HFS)		541.3060.C			DRAFT

ALL CABLES EXCEPT, HFSF820.A, HFSF821 & HFSF869 SHOULD BE MARKED WITH PART NUMBER

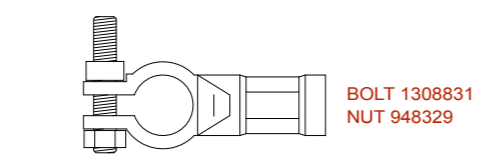
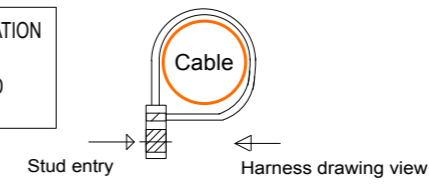
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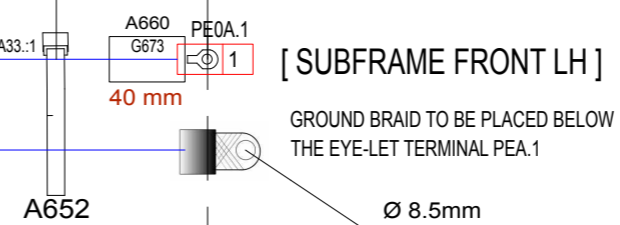
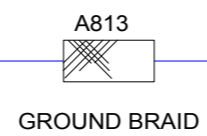
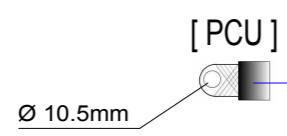
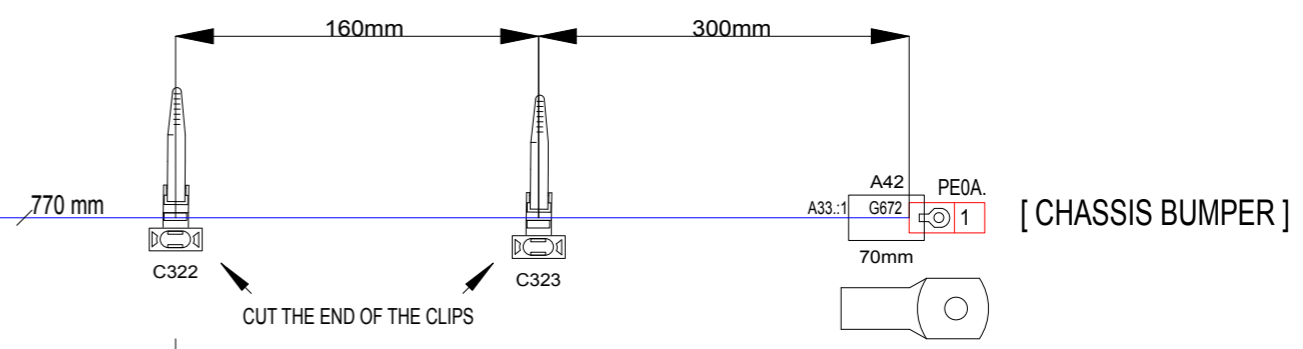
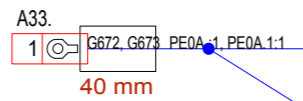
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
G675	GROUND BRAID2	BARE	25.00 mm ²	PE0A.1	1	A13_-	1	
G672	SK90	BK	25.00 mm ²	PE0A.	1 /1.C6	A33.	1 /1.C2	770
G673	SK90	BK	25.00 mm ²	A33.	1 /1.C2	PE0A.1	1 /1.D4	240

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A33.	1			BOLT 1308831	
A42	1			Crimp Sleeve without Glue	
A33.	1			NUT 948329	
A33.	1		966819	RING TERMINAL	
PE0A.	1		KR25-6F	RING TERMINAL M6 KR25-6F	
PE0A.1	1		KR25-8	RING TERMINAL M8	
A652	1	HELLERMANN TYTON	CABLE TIE T30L SV-500	CABLE TIE T30L SV-500	
C322,C323	2	HELLERMANN TYTON	133-00391	CLIPS T50SOSWSP5E-2	
A813	1	MERICON	558241	GROUND BRAID TIN PLATED CU BRAID 25MM2 W VINYL, L=330mm, M10/M8	
A660	1	Tyco	ILS 95	Crimp Sleeve ILS 95 w/glue	

FASTENERS AND COVERS ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND DOCUMENTED PRIOR TO RELEASE.



[AUX BATTERY TERMINAL]



BLACK SHRINK SLEEVE A42 MARKED WITH PART NUMBER ON CRIMP SIDE

Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

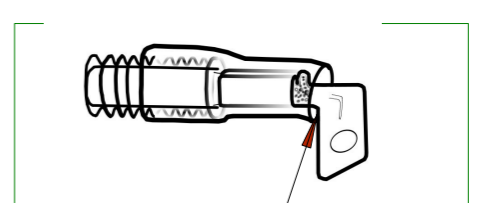
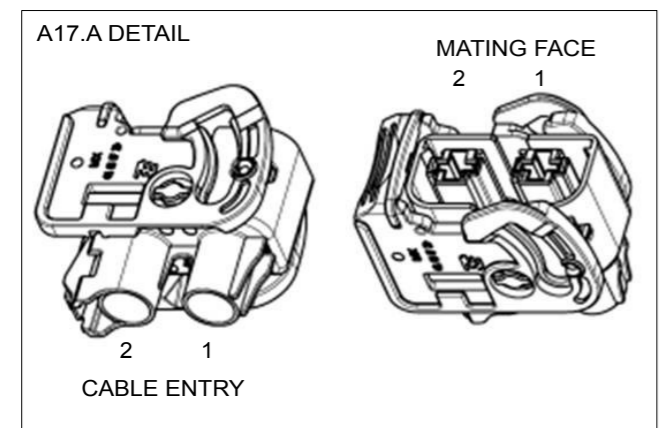
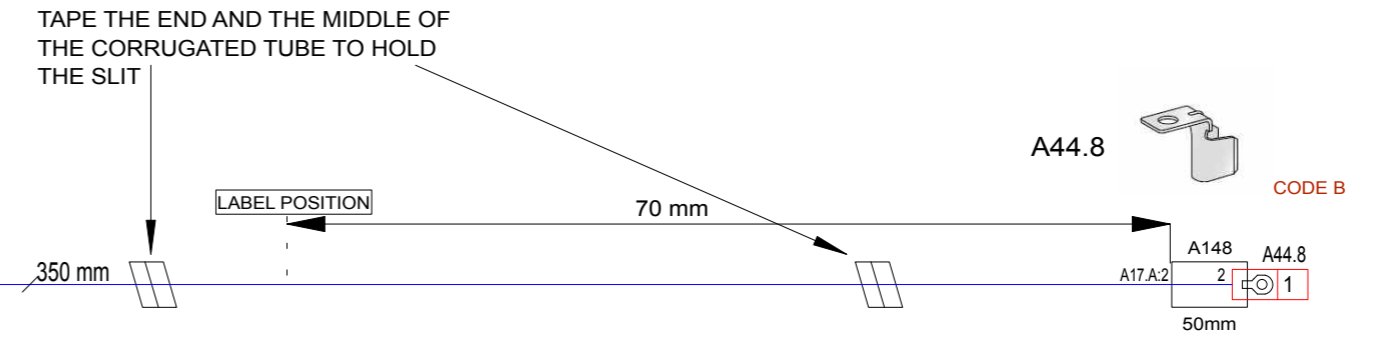
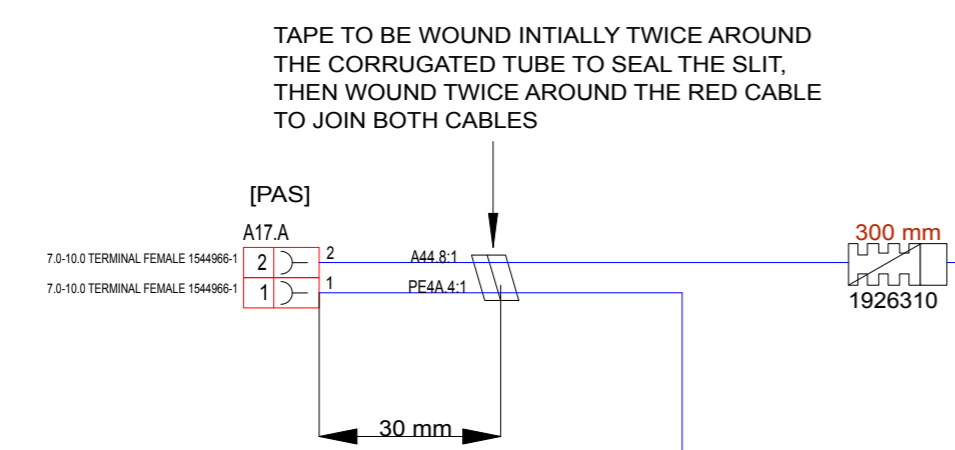
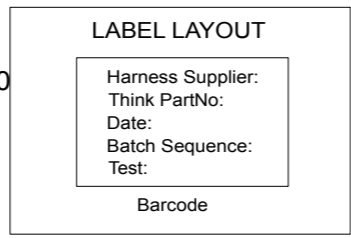
General tolerance for positioning of cable ties and clips: ±5 mm

B	T001	Changed the ground braid layout and removed the eyelets		N/A	JJF	PBA
A	N/A	New ground cable, adjusted lengths etc	14.01.2010	V3	MSV	EFP
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESS		Document type		THINK		
MSV		Prepared by				
A306 MY2011 Pre-series		File name				
Approved by		A3	Sheet Size	Created	Change Date	Page 1 of 1
A306		Description		Drawing no		Status
CABLE BATT (-) TO PCU AND GND		541.3070.A		R		

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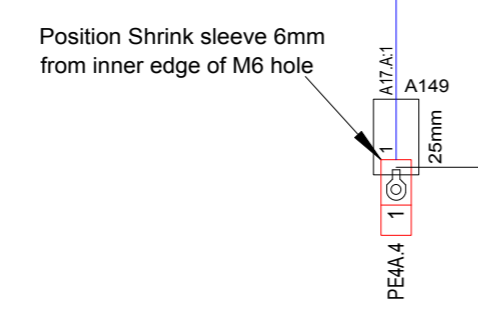
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Lenght (mm) (Cu)	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
1	R2	BK	10.00 mm ²	A17.A	1 /1.B21B2	PE4A.4	1 /1.E21E2	550	L10	1			Think Label Layout	
2	R2	RD	10.00 mm ²	A17.A	2 /1.B21B2	A44.8	1 /1.B51B5	350	A631	1	CHIP MARKETING AB/JETPRESS LIMITED	CAT054-BLK	Strips	
									PE4A.4	1	G&HARTMAN	977971	RING TERMINAL M6 6.1-12.0	
									A44.8	1	MTA	1605820	10-16 Ring Terminal M5 MTA Cu-Sn	
									A148,A149	2	Raychem	Atum-12/4-0	Crimp Sleeve ATUM 12/4-BLACK w/glue	
										300	SCHLEMMER	1926310	CORRUGATED TUBE NW10 SLIT BLACK	
									A17.A	2	TYCO	1544966-1	7.0-10.0 TERMINAL FEMALE 1544966-1	
									A17.A	2	TYCO	1544970-3	SWS 10mm2 1544970-3	
									A17.A	1	TYCO	1801398-1	CONNECTOR 2PIN FEMALE 1801398-1	



THE GAP BETWEEN THE RING-TERMINAL AND THE SHRINK SLEEVE SHOULD BE KEPT TO A MINIMUM

NOTE:
THE CAVITY FOR THE TYCO CONNECTOR DOES NOT MATCH THE NUMBERING OF THE TRW POWER STEERING PUMP (PAS). NO INFORMATION ON THE COMPONENT DRAWING ABOUT TYCO NUMBERING.

TYCO/THINK	TRW	POLARITY
2	1	+
1	2	-



Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

C	T003 T004 T005 T006	Wrong pin-out on PAS Reduce Corrugated tube Add table with pin-out info Added new label layout		N/A	JJF	PBA
B	N/A	Changed connector on PAS	20100706	Gen-2	MSV	PBA
A	N/A	GEN-2 Version	20100129	V3	MSV	EFP
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESS			Document type			
JJF			Prepared by			
A306 MY2011 Pre-series			File name			
Approved by		A3	Sheet Size		Created 20100511 Change Date	
A306			Description		Drawing no	
CABLE PAS PUMP TO POWER			541.3080.C		Status	
			1 of 1		DRAFT	

Plotted: 16.05.2011 13:35 msv

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1		2		3		4		5		6				
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Lenght (mm) (Cu)	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
SHIELD	MODEM CABLE	BARE	AWG 24	BLUNT_CUT1	1 /1.C5	DSUB SHIELD	/1.C1	980	SIADIS.	4			0.3-0.6 TERMINAL FEMALE 282403-1	
DSUB2	MODEM CABLE	BN	AWG 24	DSUB	2 /1.C1	SIADIS.	1 /1.C6	1000	BLUNT_CUT1	1			BLUNT CUT	
DSUB3	MODEM CABLE	BU	AWG 24	DSUB	3 /1.C1	SIADIS.	2 /1.C6	1000	DSUB	1	ELFA	44-027-06	D-Sub connector 9 contacts; FEMAL connector; top view	
DSUB5	MODEM CABLE	OG	AWG 24	DSUB	5 /1.C1	SIADIS.	4 /1.C6	1000	SIADIS.	1	TYCO	282088-1	CONNECTOR 4PIN FEMALE SUPERSEAL 282088-1	
DSUB7	MODEM CABLE	BU/WH	AWG 24	DSUB	7 /1.C1	SIADIS.	3 /1.C6	1000						

THIS IS ONLY FOR DIAGNOSTIC AND PRODUCT DEVELOPMENT.



Length tolerances

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

A	New harness	GEN_2	20100223	MSV	-
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNESS		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A3	Sheet Size	Created	Change Date	Page 1 of 1
A306		Description	Drawing no		Status
SIADIS/CHAS DIAG AND PROGR		CABLE 095.A		DRAFT	

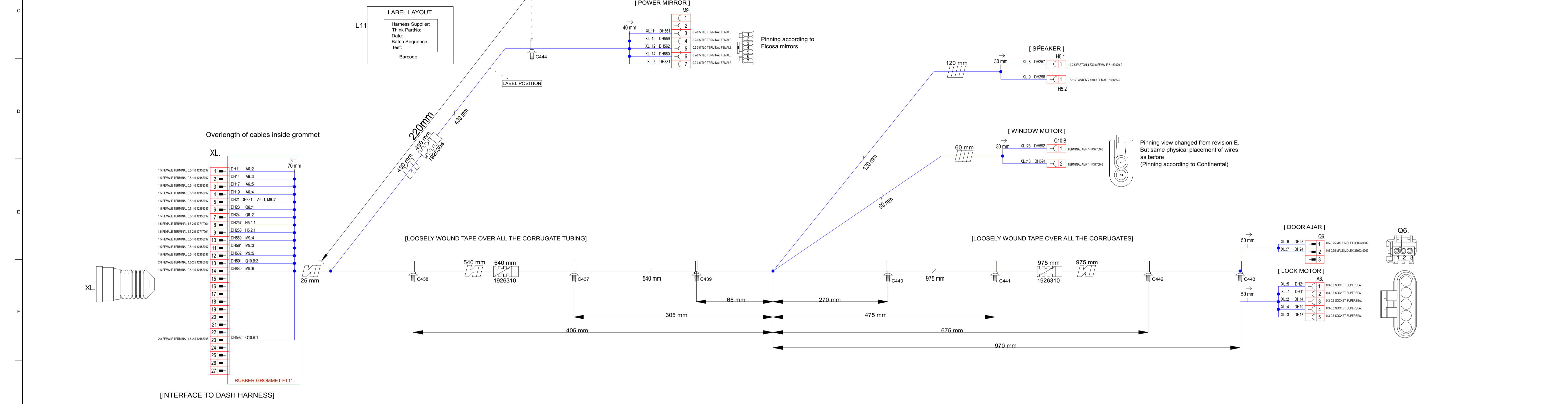
Plotted: 16.05.2011 13:35 msv

Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)
DH11	R2	GNVE	0.50 mm²	A6	2 / I.F141F14	XL	1 / I.E31E3	1960
DH14	R2	BUYE	0.50 mm²	A6	3 / I.F141F14	XL	2 / I.E31E3	1960
DH17	R2	GN	0.50 mm²	A6	5 / I.F141F14	XL	4 / I.E31E3	1960
DH19	R2	OY	0.50 mm²	A6	4 / I.F141F14	XL	3 / I.E31E3	1960
DH21	R2	BK	0.50 mm²	A6	1 / I.F141F14	XL	5 / I.E31E3	1960
DH23	R2	GN	0.50 mm²	O6	1 / I.E141E14	XL	6 / I.E31E3	1960
DH24	R2	BK	0.50 mm²	O6	2 / I.E141E14	XL	7 / I.E31E3	1960
DH257	R2	WHGN	1.50 mm²	H5.1	1 / I.D11D11	XL	8 / I.E31E3	785
DH258	R2	GN	1.50 mm²	XL	9 / I.E31E3	H5.2	1 / I.D11D11	785
DH559	R2	BUYE	0.50 mm²	M9	4 / I.C71C7	XL	10 / I.E31E3	565
DH561	R2	BN	0.50 mm²	XL	11 / I.E31E3	M9	3 / I.C71C7	565
DH562	R2	YE	0.50 mm²	XL	12 / I.E31E3	M9	5 / I.C71C7	565
DH591	R2	OY	1.50 mm²	Q10.B	2 / I.E11E11	XL	13 / I.F31F3	725
DH592	R2	YE	1.50 mm²	XL	23 / I.F31F3	Q10.B	1 / I.D11D11	725
DH880	R2	RDBU	0.50 mm²	M9	6 / I.C71C7	XL	14 / I.F31F3	565
DH881	R2	BK	0.50 mm²	XL	5 / I.E31E3	M9	7 / I.F31F3	565

NOTES:
 1. All connector diagrams are showing the wire side entry
 2. Cables DH257 + DH258 Twisted 40 +/- 2 Turns/m

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
L11	1			Think Label Layout	
XL	2	DELPHI	10717964	FEMALE TERMINAL 1.5-2.5 SEALED	
XL	11	DELPHI	12158097	FEMALE TERMINAL 0.5-1.0 SEALED	
XL	2	DELPHI	12185008	FEMALE TERMINAL 1.5-2.5 SEALED	
H5.2	1	DSG-CANUSA	CPX355-48	SHRINK TUBE CPX355-48-0030	
H5.1	1	DSG-CANUSA	CPX355-64	SHRINK TUBE CPX355-64-0030	
O6	1	ENGINEERED PLASTIC COMP. INC	F57B-14A459-HA	PROT HOUSING 3 PIN	
XL	1	ESMA	15344011	CONNECTOR MALE 27 PIN ESMA 15344011	
XL	1	ESMA	FT11	RUBBER GROMMET FT11	
C437,C438,C439,C440,C441,C442,C443,C444	8	HELLERMANN TYTON	T50R-F17	CLIPS T50R-F17 Black	
O6	2	MOLEX	33093-0009	0.5-0.75 TERMINAL MALE	
	430	SCHLEMMER	1926304	CORRUGATED TUBE BLACK Ø 7.1x5.0 SLIT	
	1515	SCHLEMMER	1926310	CORRUGATED TUBE BLACK Ø 12.7x10.1 SLIT	
	2150	TESA	51608-09-15	TAPE TEXTILE TESA 51608-09-15	
Q10.B	2	TYCO	1-1437709-6	1.5-2.5 TERMINAL FEMALE 1-1437709-6	
Q10.B	2	TYCO	1-1437713-3	SWS ID 2.2-2.4 1-1437713-3	
H5.2	1	TYCO	160655-2	0.5-1.5 FASTON 2.8X0.8 FEMALE 160655-2	
A6	1	TYCO	282089-1	CONNECTOR SPIN FEMALE 282089-1	
A6	5	TYCO	282403-1	0.3-0.8 SOCKET SUPERSEAL	
Q10.B	1	TYCO	5-1437710-5	CONNECTOR FEMALE SPIN 1.6 SYSTEM	
H5.1	1	TYCO	5-160429-2	1.0-2.5 FASTON 4.8X0.8 FEMALE 5-160429-2	
A6	5	TYCO	828921-1	SWS ID 1.2-2.0 SUPERSEAL 828921-1	
M9	5	YAZAKI	7115-1591	0.2-0.5 TLC TERMINAL FEMALE	
M9	1	YAZAKI	7129-6071	HOUSING FEMALE 7PIN TLC SERIES	
M9	5	YAZAKI	7157-3621	0.3 SWS BLACK TLC CONNECTORS	

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[INTERFACE TO DASH HARNESS]

Overlength of cables inside grommet

Wire Id	Terminal	Length (mm)
DH11	A6-2	70
DH14	A6-3	70
DH17	A6-5	70
DH19	A6-4	70
DH21, DH881	A6-1, M9-7	70
DH23	O6-1	70
DH24	O6-2	70
DH257	H5.1	70
DH258	H5.2	70
DH559	M9-4	70
DH561	M9-3	70
DH562	M9-5	70
DH591	Q10.B-2	70
DH880	M9-6	70
DH592	Q10.B-1	70

[POWER MIRROR] M9

[SPEAKER] H5.2

[WINDOW MOTOR] Q10.B

[DOOR AJAR] O6

[LOCK MOTOR] A6

[RUBBER GROMMET FT11]

[LOOSELY WOUND TAPE OVER ALL THE CORRUGATE TUBING]

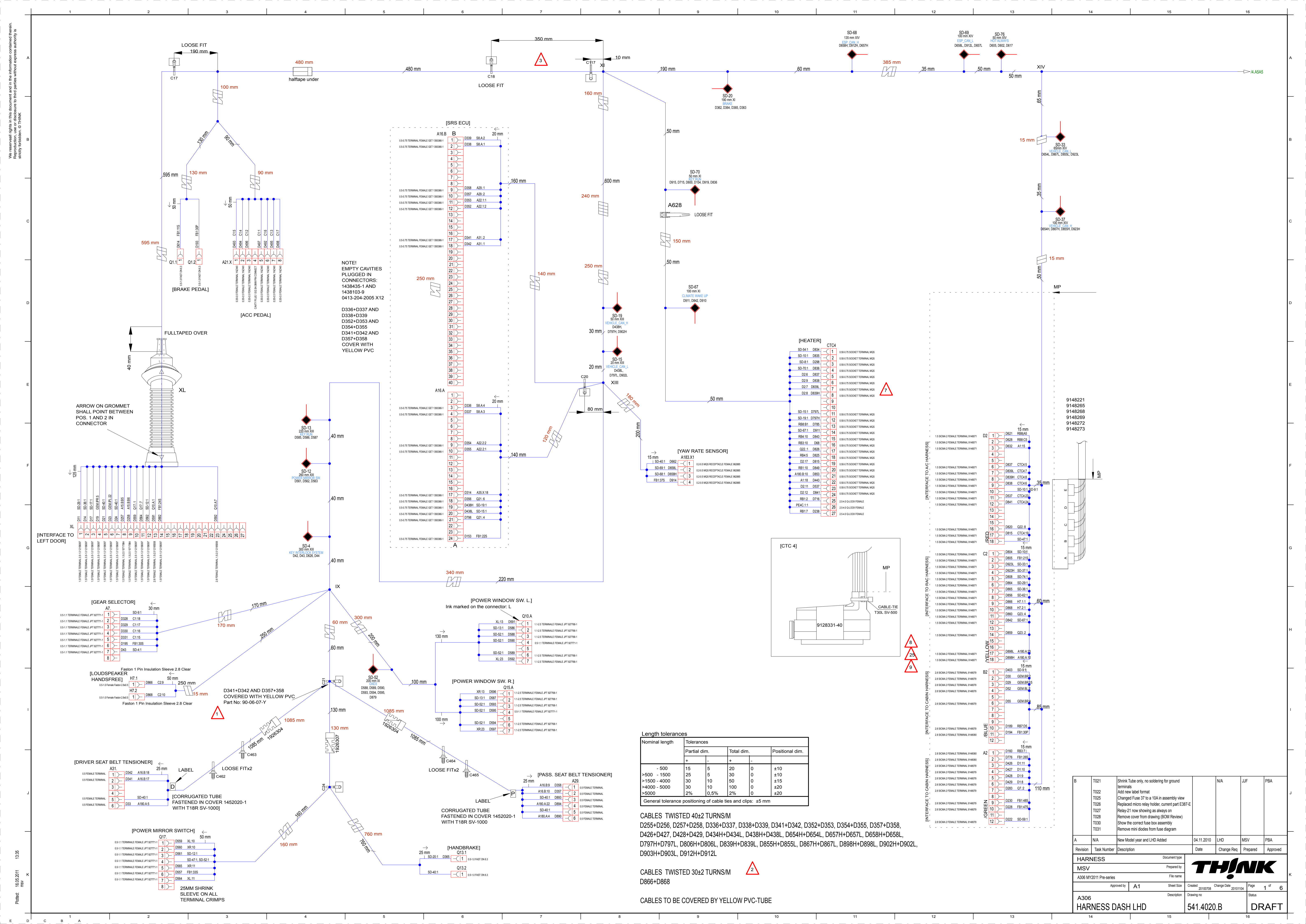
[LOOSELY WOUND TAPE OVER ALL THE CORRUGATES]

Nominal length	Tolerances			
	Partial dim.	Total dim.	Positional dim.	
- 500	15	5	20	0 ±10
>500 - 1500	25	5	30	0 ±10
>1500 - 4000	30	10	50	0 ±15
>4000 - 5000	30	10	100	0 ±20
>5000		2%	0.5%	2% 0 ±20

General tolerance positioning of cable ties and clips: ±5 mm

B	T001	Swap wires DH17 & DH19 and correct pin out		N/A	JUF	PBA
	T002	Added new label layout				
A	N/A	New Harness for Gen-2 with new door ajar switch	09.06.2010	Gen-2	MSV	PBA
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNESSES		Document type				
MSV		Prepared by				
A306 MY2011 Pre-series		File name				
Approved by		A1	Sheet Size	Created	20100527	Change Date
A306		Description	Drawing no		Page 1 of 1	
HARNESSES DOOR CONVENIENCE		541.3200.B		DRAFT		

Project: 16.03.2011 MSV



NOTE!
EMPTY CAVITIES
PLUGGED IN
CONNECTORS:
1438435-1 AND
1438103-9
0413-204-2005 X12

D336+D337 AND
D338+D339
D352+D353 AND
D354+D355
D341+D342 AND
D357+D358
COVER WITH
YELLOW PVC

Length tolerances

Nominal length	Tolerances		
	Partial dim.	Total dim.	Positional dim.
- 500	15	5	±10
>500 - 1500	25	5	±10
>1500 - 4000	30	10	±15
>4000 - 5000	30	10	±20
>5000	2%	0.5%	±20

General tolerance positioning of cable ties and clips: ±5 mm

CABLES TWISTED 40± TURNS/M
D255+D256, D257+D258, D336+D339, D341+D342, D352+D353, D354+D355, D357+D358,
D426+D427, D428+D429, D434H+D434L, D438H+D438L, D654H+D654L, D657H+D657L, D658H+D658L,
D797H+D797L, D806H+D806L, D839H+D839L, D855H+D855L, D867H+D867L, D898H+D898L, D902H+D902L,
D903H+D903L, D912H+D912L

CABLES TWISTED 30± TURNS/M
D866+D868

CABLES TO BE COVERED BY YELLOW PVC-TUBE

Revision	Task Number	Description	Date	Change Req	Prepared	Approved
A	N/A	New Model year and LHD Added	04.11.2010	LHD	MSV	PBA

HARNESSES		Document type	
MSV		Prepared by	
A306 MY2011 Pre-series		File name	
Approved by	A1	Sheet Size	Created
A306		21/03/2008	
HARNESSES DASH LHD		Description	Change Date
411.4020.B		2010/11/01	
DRAFT		Status	Page
1		1 of 6	

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ALL GROUND LUGS TO BE COVERED BY SHRINKSLEEVE 25MM LONG
 [GROUND LHS TYPE 1+2] [GROUND LHS TYPE 4]

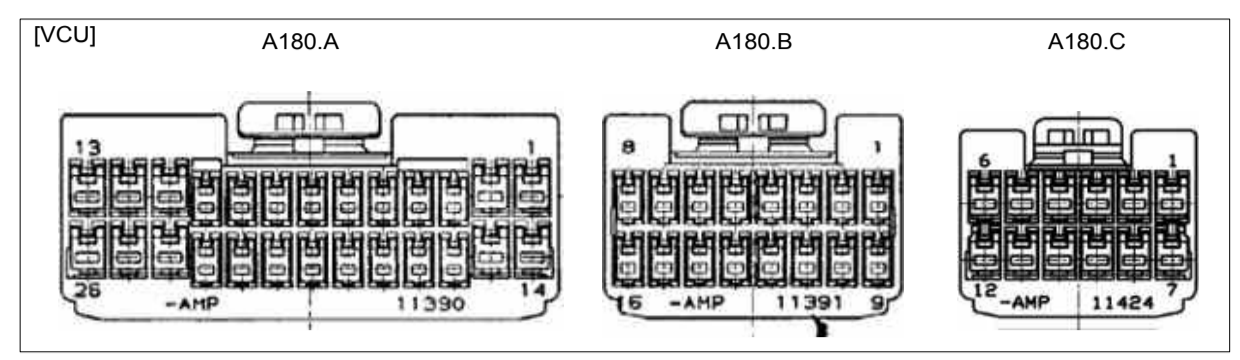
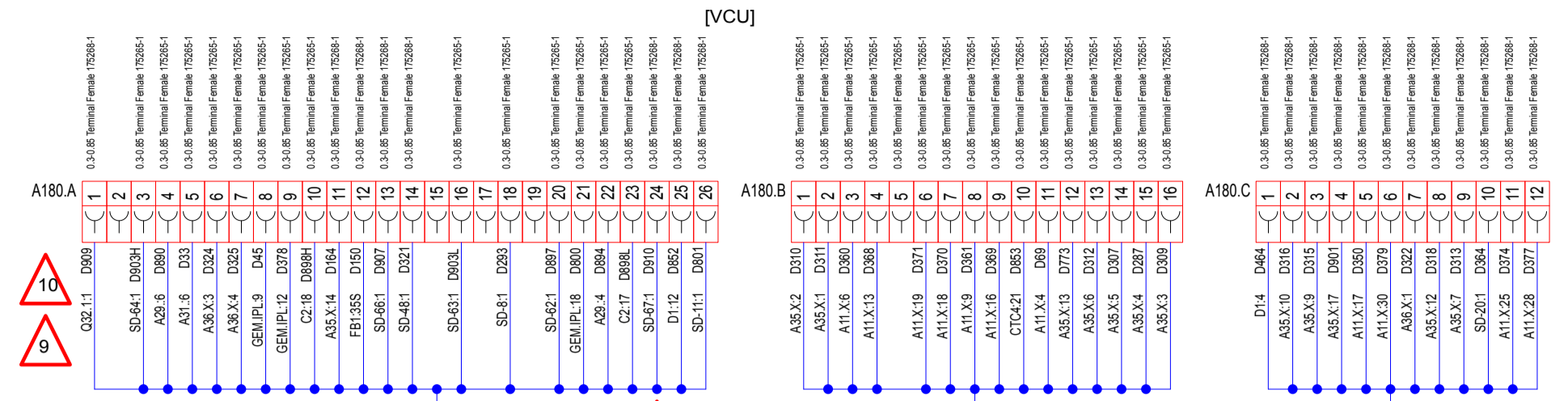
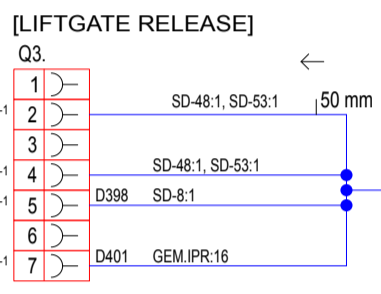
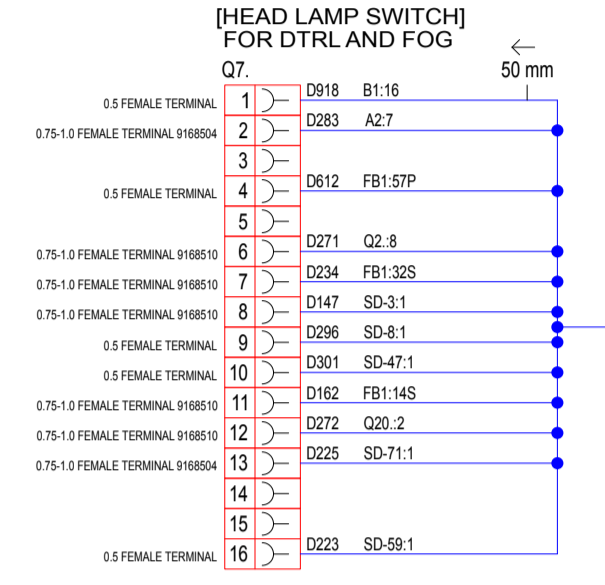
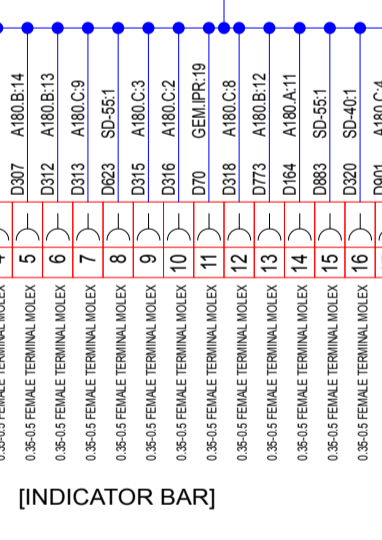
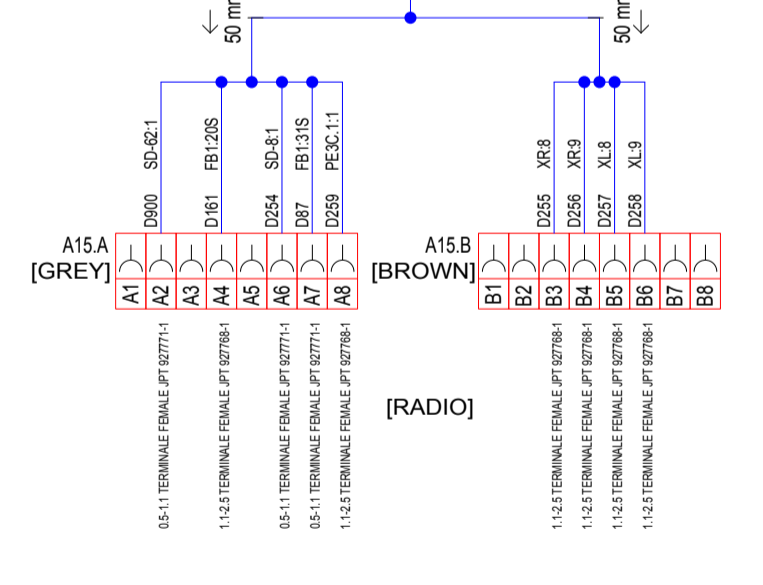
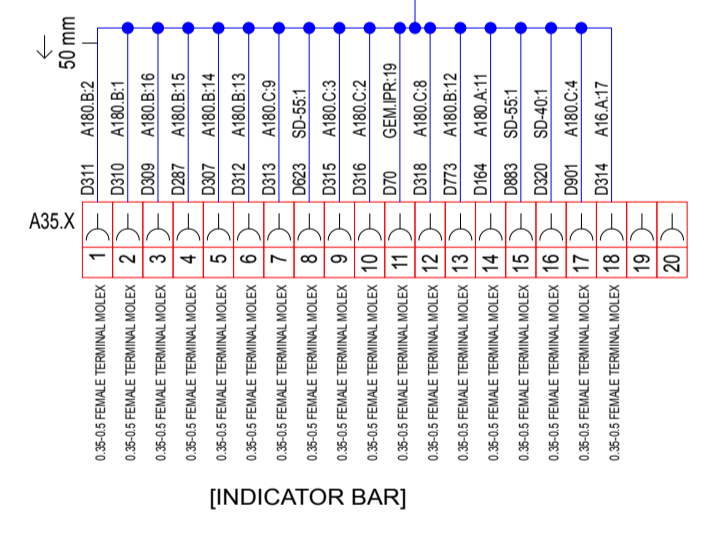
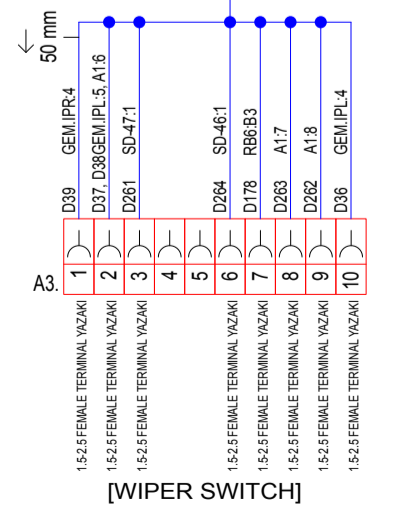
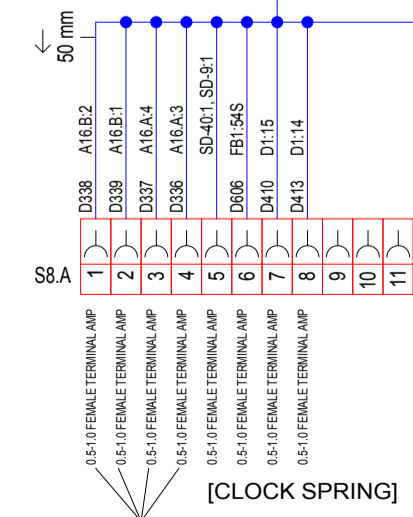
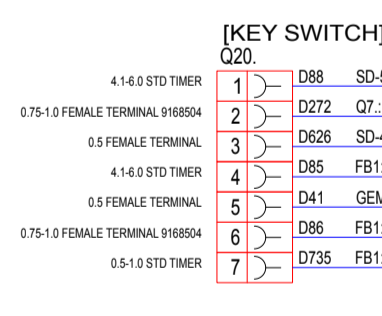
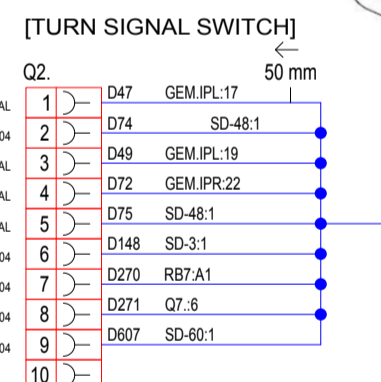
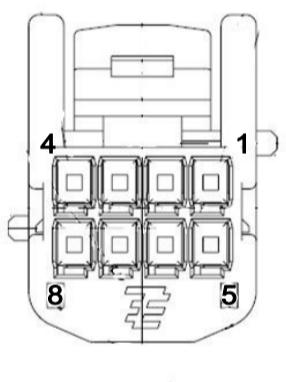
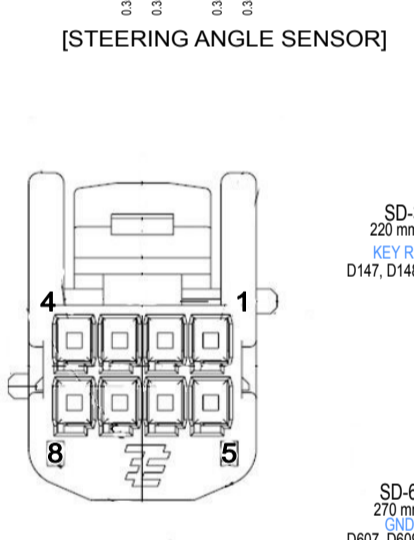
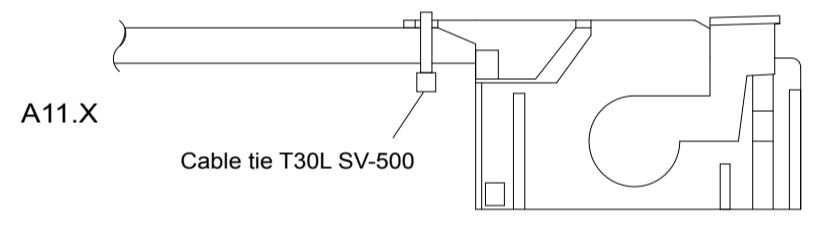
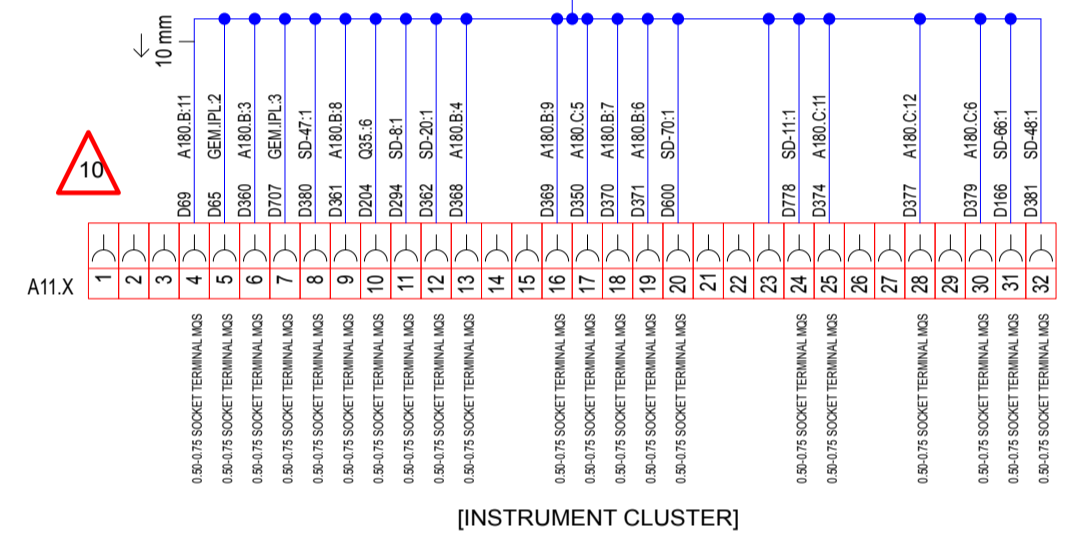


Table: Steering Angle Sensor SAS

UNIT	CONNECTOR	FUNCTION
1	4	12 V
2	3	-
3	2	GND
4	1	CAN HIGH
5	8	-
6	7	-
7	6	-
8	5	CAN LOW



Length tolerances

Nominal length	Tolerances		Total dim.	Positional dim.
	Partial dim.			
-500	15	5	20	±10
>500 - 1500	25	5	30	±10
>1500 - 4000	30	10	50	±15
>4000 - 5000	30	10	100	±20
>5000	2%	0.5%	2%	±20

General tolerance positioning of cable ties and clips: ±5 mm

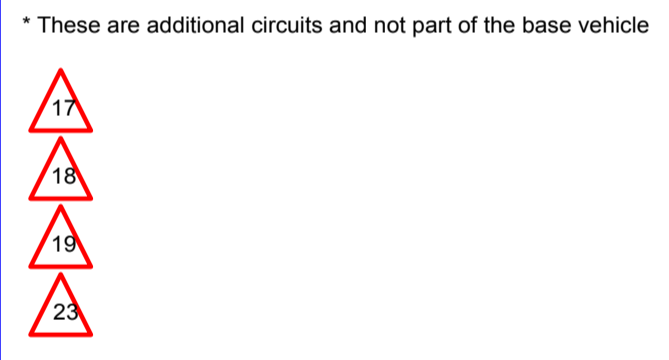
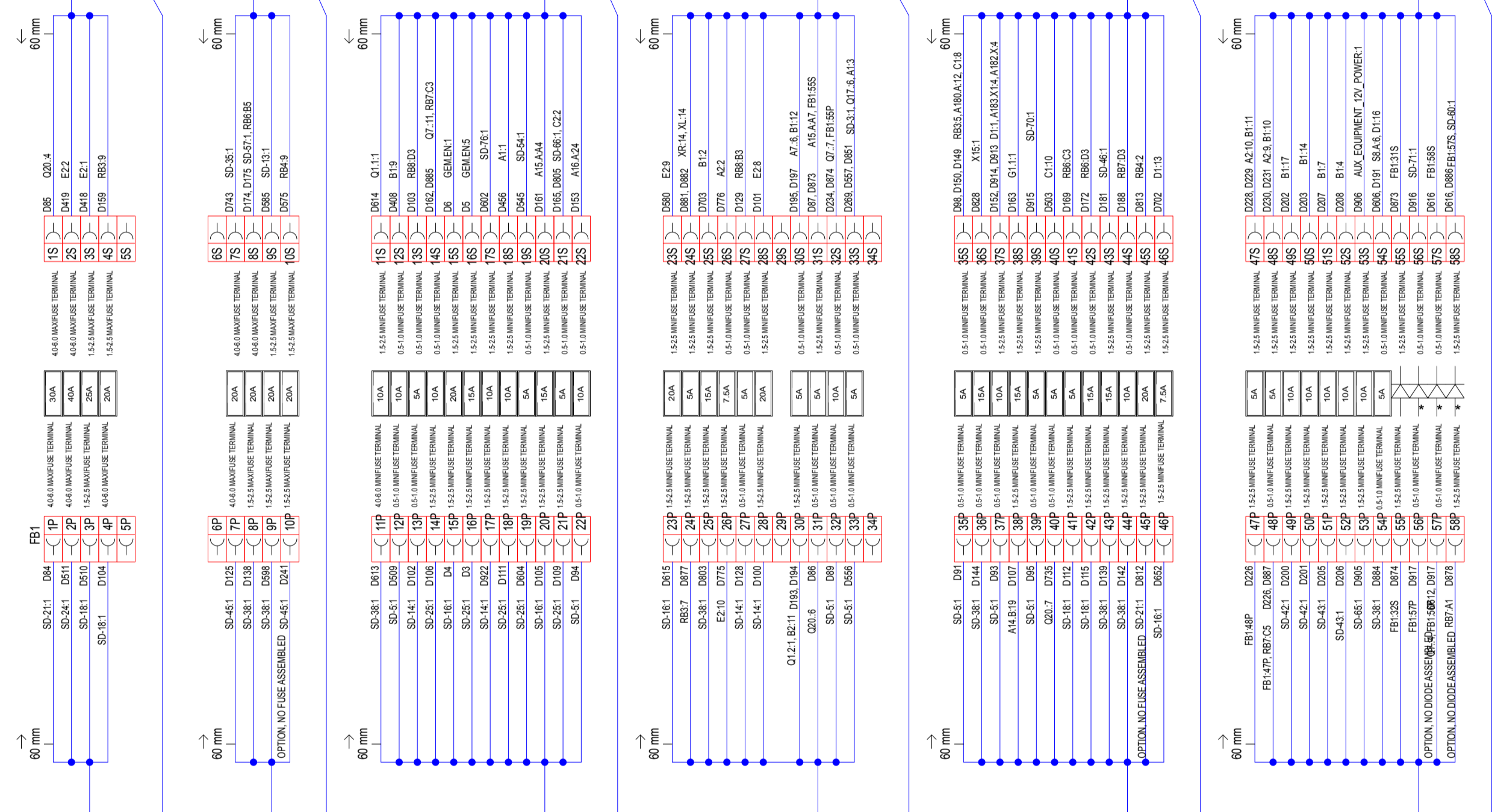
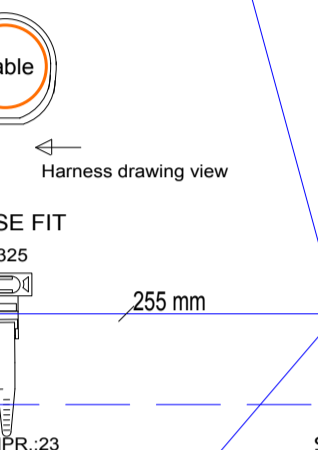
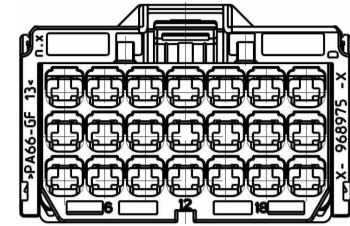
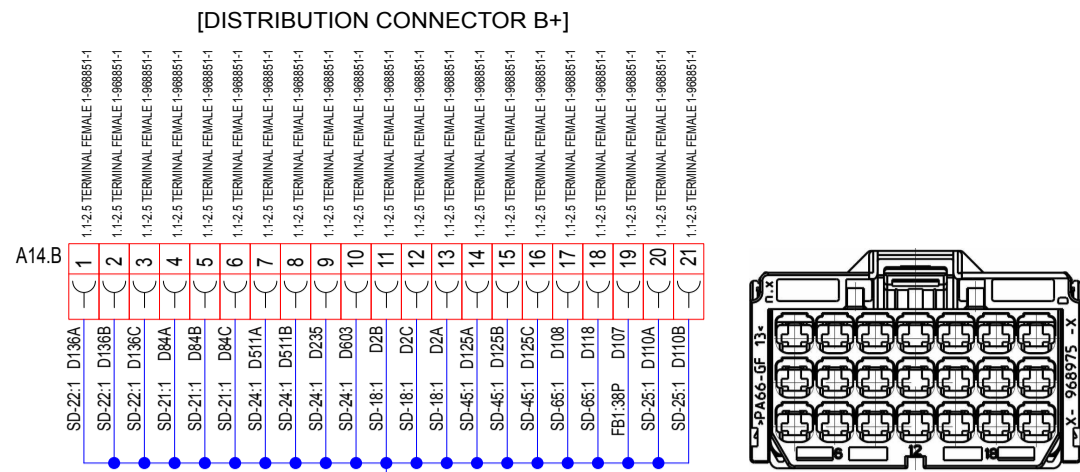
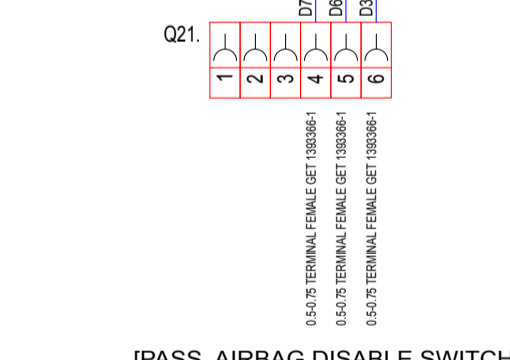
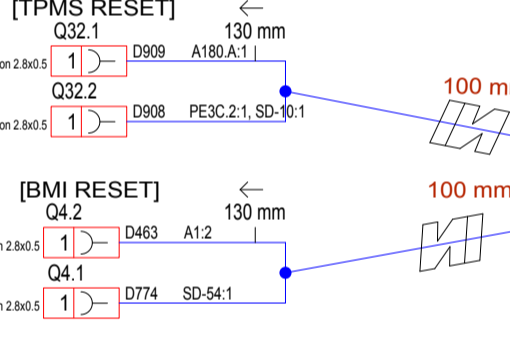
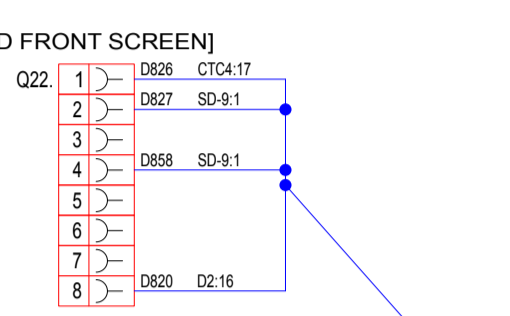
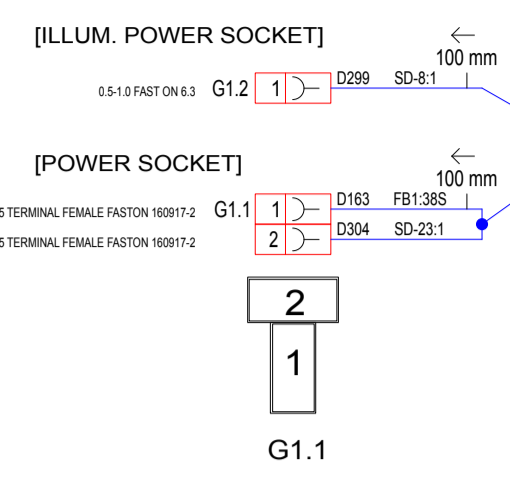
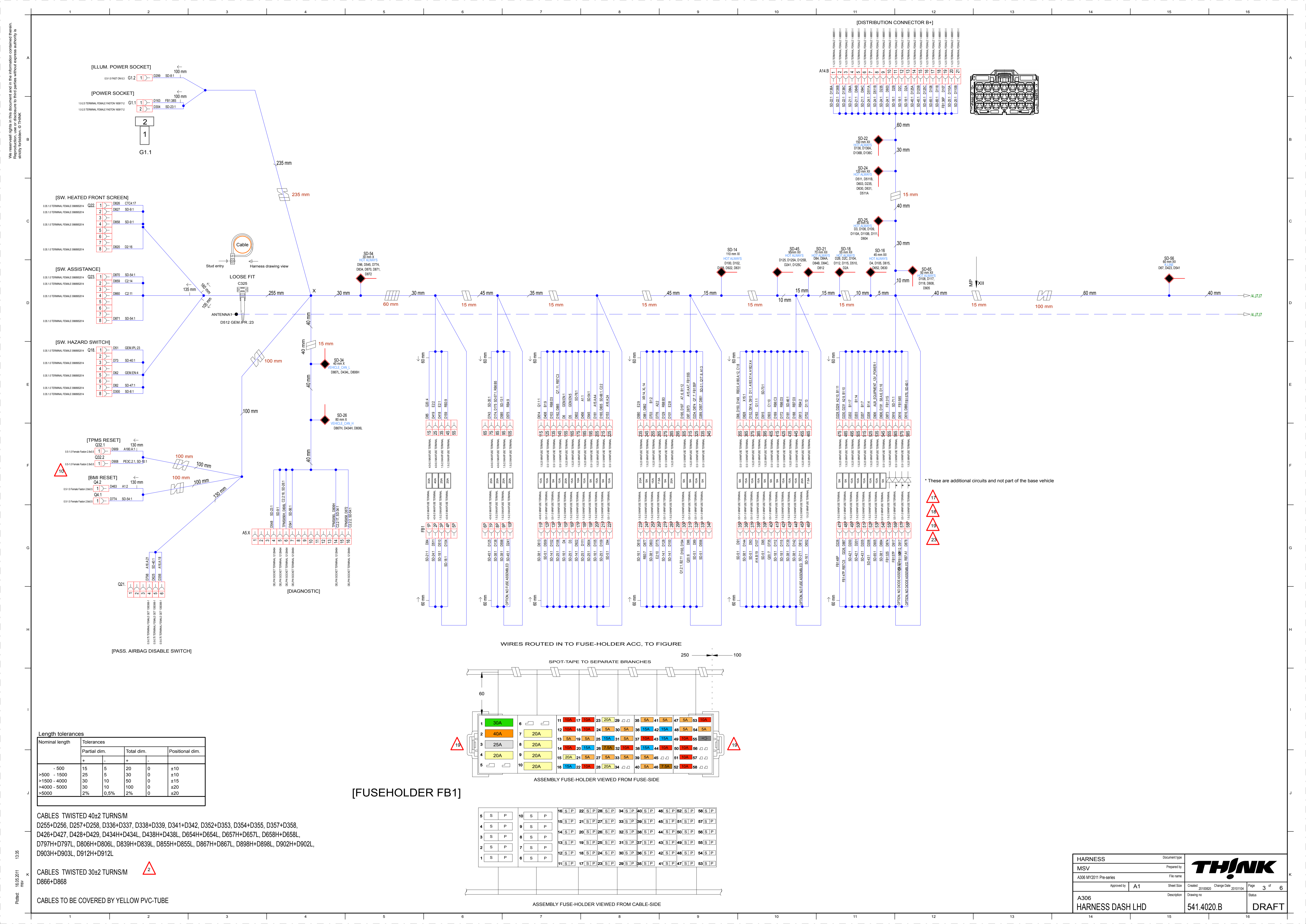
CABLES TWISTED 40±2 TURNS/M
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 D426+D427, D428+D429, D434H+D434L, D438H+D438L, D654H+D654L, D657H+D657L, D658H+D658L,
 D797H+D797L, D806H+D806L, D839H+D839L, D855H+D855L, D867H+D867L, D898H+D898L, D902H+D902L,
 D903H+D903L, D912H+D912L

CABLES TWISTED 30±2 TURNS/M
 D866+D868

CABLES TO BE COVERED BY YELLOW PVC-TUBE

HARNES		Document type	
MSV		A306 MY2011 Pre-series	
Approved by		A1	Sheet Size
Created		2010/07/08	Change Date
Drawing no		541.4020.B	Page
Description		A306 HARNES DASH LHD	2 of 6
Status		DRAFT	





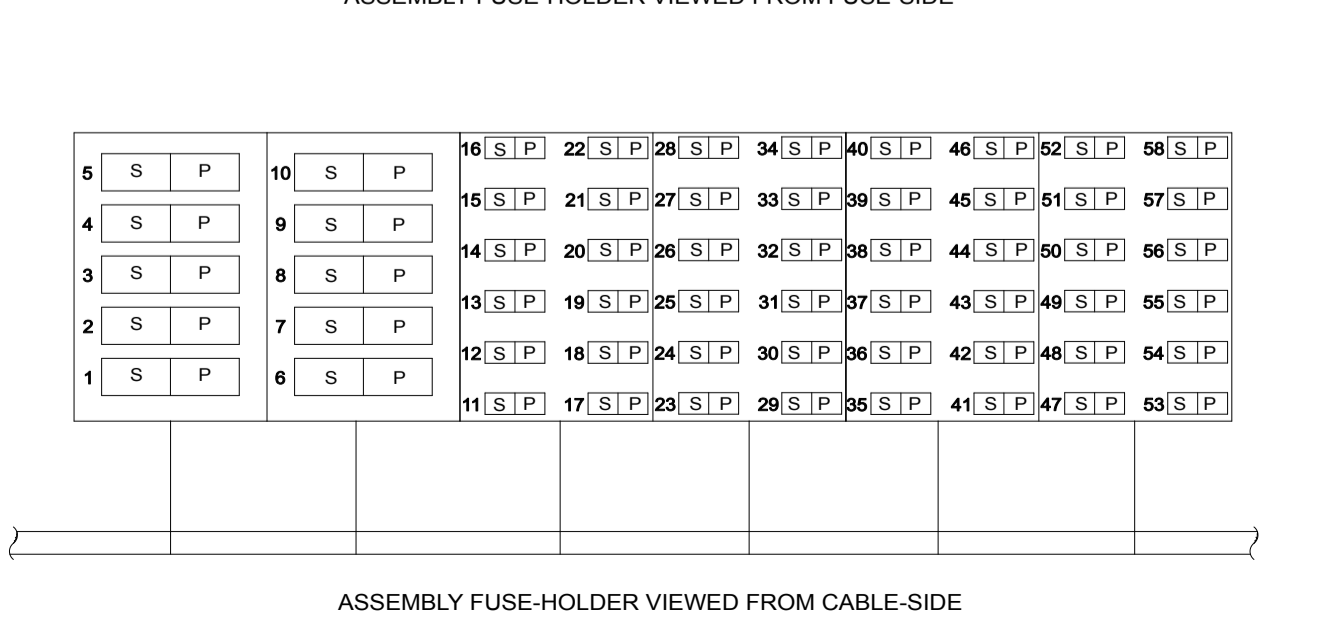
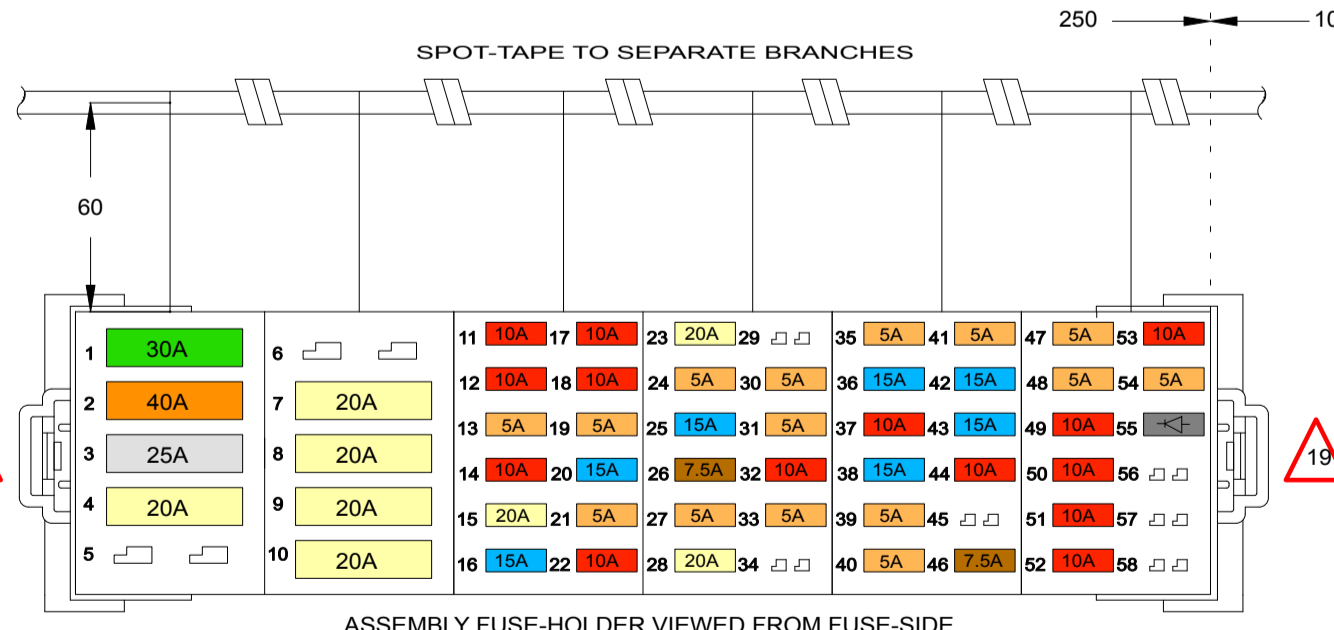
Length tolerances

Nominal length	Tolerances		Positional dim.	
	Partial dim.	Total dim.	+	-
- 500	15	5	20	0
>500 - 1500	25	5	30	0
>1500 - 4000	30	10	50	0
>4000 - 5000	30	10	100	0
>5000	2%	0.5%	0	0

CABLES TWISTED 40±2 TURNS/M
 D255+D256, D257+D258, D336+D337, D338+D339, D341+D342, D352+D353, D354+D355, D357+D358,
 D426+D427, D428+D429, D434H+D434L, D438H+D438L, D654H+D654L, D657H+D657L, D658H+D658L,
 D797H+D797L, D806H+D806L, D839H+D839L, D855H+D855L, D867H+D867L, D898H+D898L, D902H+D902L,
 D903H+D903L, D912H+D912L

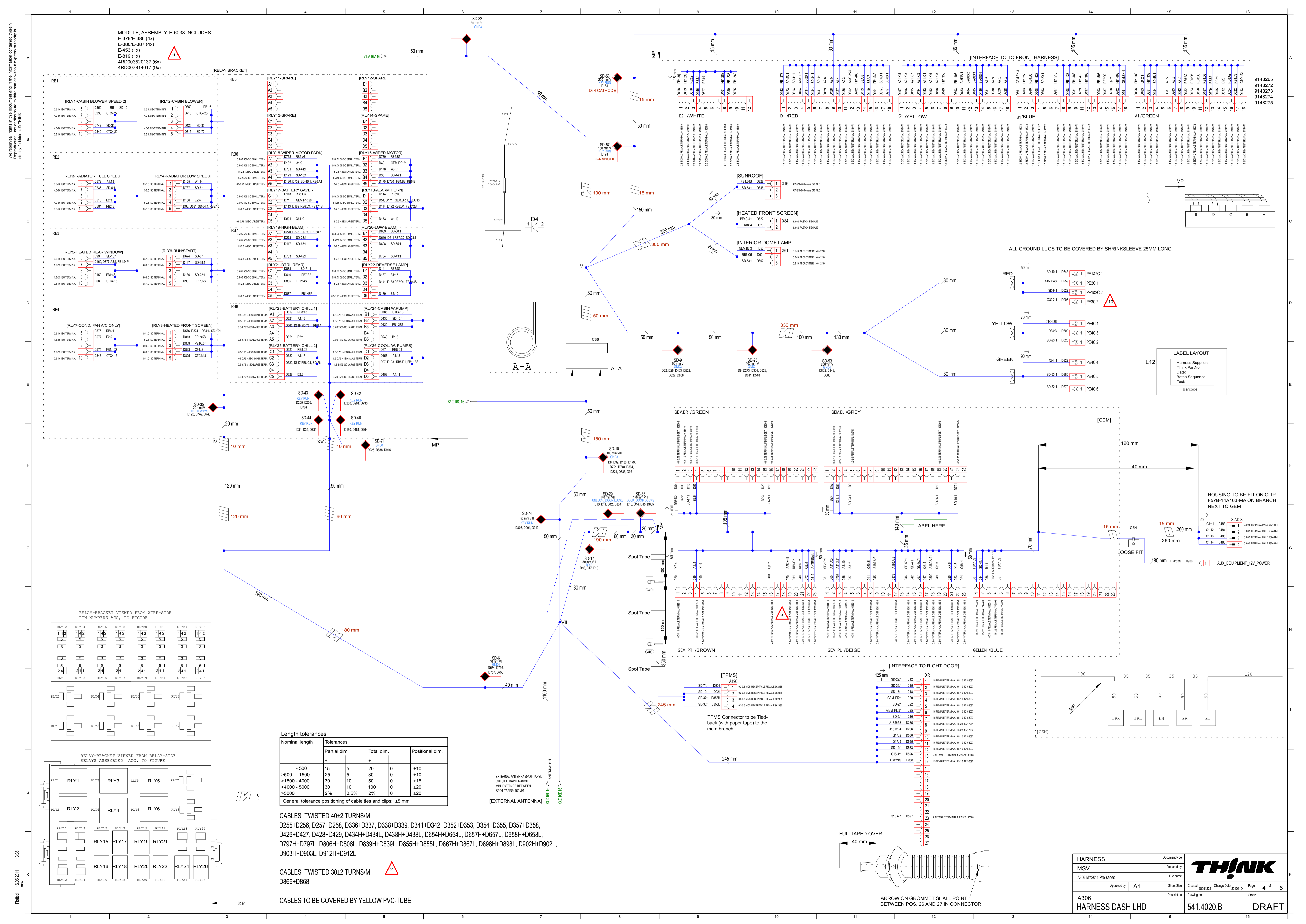
CABLES TWISTED 30±2 TURNS/M
 D866+D868

CABLES TO BE COVERED BY YELLOW PVC-TUBE

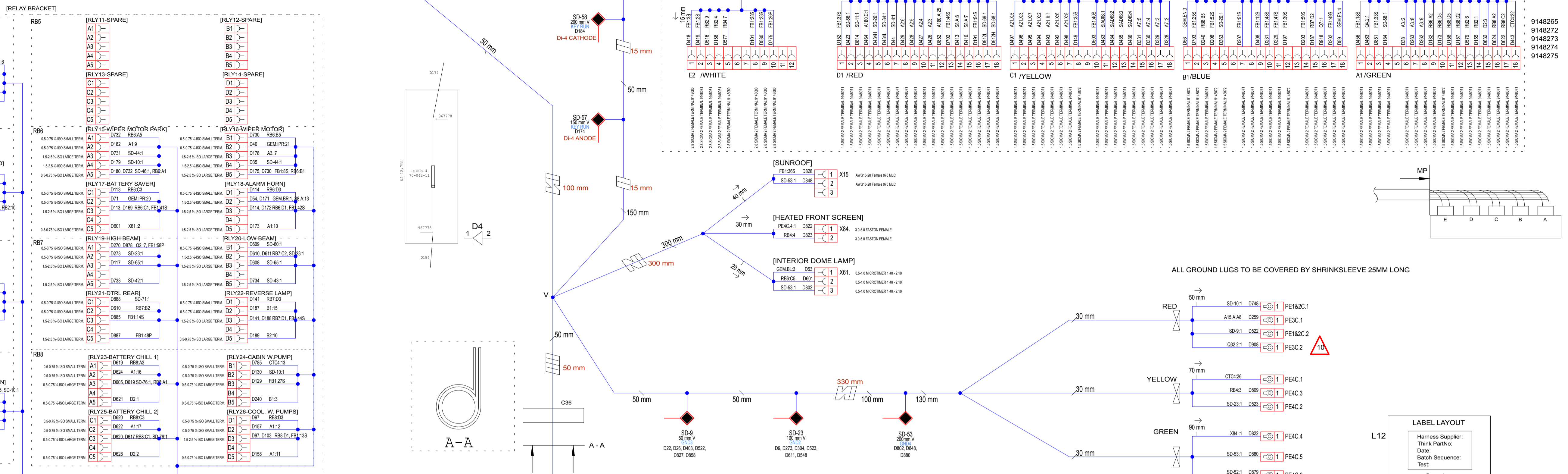


[FUSEHOLDER FB1]

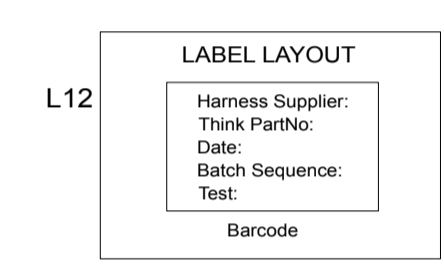




MODULE ASSEMBLY, E-6038 INCLUDES:
 E-379/E-386 (4x)
 E-380/E-387 (4x)
 E-453 (1x)
 E-619 (1x)
 4RD003520137 (6x)
 4RD007814017 (6x)



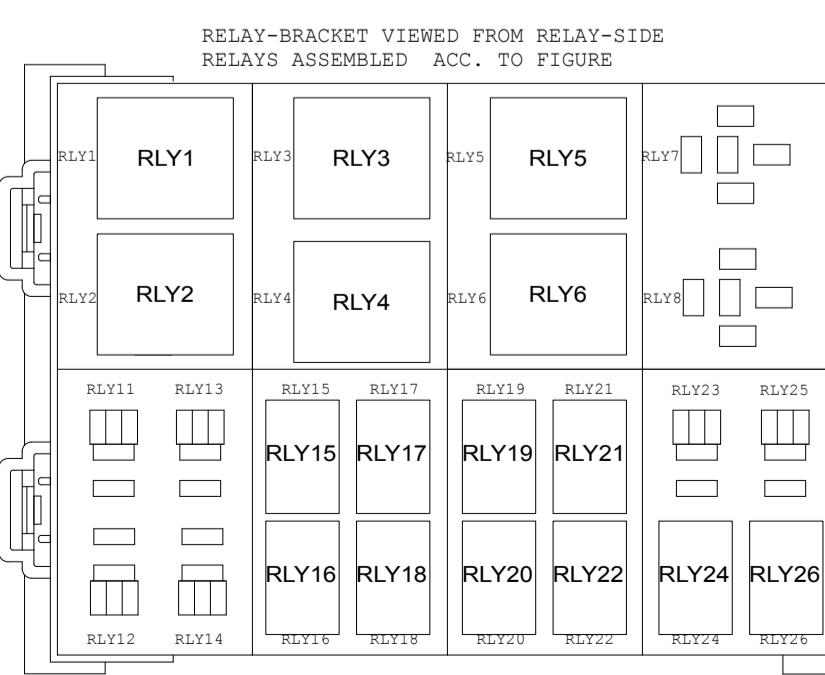
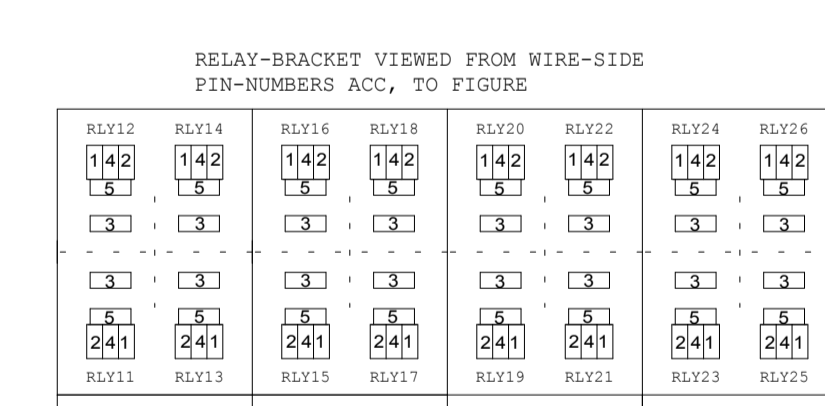
ALL GROUND LUGS TO BE COVERED BY SHRINKSLEEVE 25MM LONG



L12
 Harness Supplier:
 Think PartNo:
 Date:
 Batch Sequence:
 Test:
 Barcode

HOUSING TO BE FIT ON CLIP
 F57B-14A163-MA ON BRANCH
 NEXT TO GEM

AUX_EQUIPMENT_12V_POWER



Length tolerances

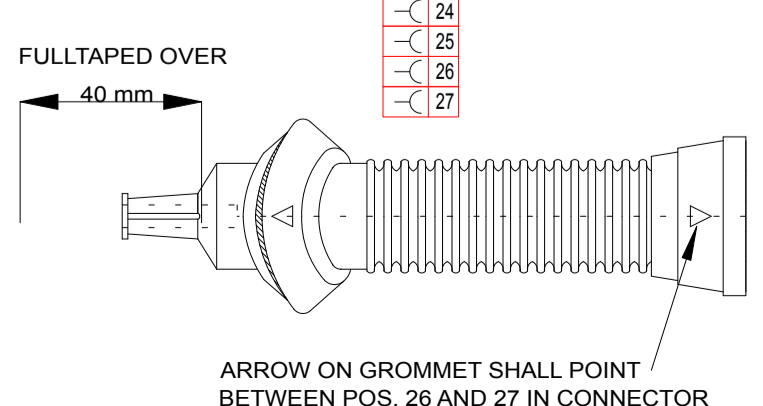
Nominal length	Tolerances		
	Partial dim.	Total dim.	Positional dim.
- 500	+ 15	- 5	±10
>500 - 1500	25	5	±10
>1500 - 4000	30	10	±15
>4000 - 5000	30	10	±20
>5000	2%	0,5%	±20

General tolerance positioning of cable ties and clips: ±5 mm

CABLES TWISTED 40±2 TURNS/M
 D255+D256, D257+D258, D336+D337, D338+D339, D341+D342, D352+D353, D354+D355, D357+D358,
 D426+D427, D428+D429, D434H+D434L, D438H+D438L, D654H+D654L, D657H+D657L, D658H+D658L,
 D797H+D797L, D806H+D806L, D839H+D839L, D855H+D855L, D867H+D867L, D898H+D898L, D902H+D902L,
 D903H+D903L, D912H+D912L

CABLES TWISTED 30±2 TURNS/M
 D866+D868

CABLES TO BE COVERED BY YELLOW PVC-TUBE



TPMS Connector to be Tied-back (with paper tape) to the main branch

ARROW ON GROMMET SHALL POINT BETWEEN POS. 26 AND 27 IN CONNECTOR

Table with columns: Wire id, Type, Colour, Size, From, Loc., To, Loc., Length (mm), Wire id, Type, Colour, Size, From, Loc., To, Loc., Length (mm), Wire id, Type, Colour, Size, From, Loc., To, Loc., Length (mm), Wire id, Type, Colour, Size, From, Loc., To, Loc., Length (mm). The table contains multiple columns of data representing wire specifications and their connections.

16.05.2011
MSV

HARNSS Document type
MSV Prepared by
A306 MY2011 Pre-series File name
Approved by A1 Sheet Size Created 2010/08/08 Change Date 2010/10/10 Page 5 of 6
Description Drawing no. 541.4020.B Status DRAFT

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Device Names	Qty.	Manufacturer	Part Number	Description	Alternative	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
SIADIS	4			0.3-0.5 TERMINAL MALE 262404-1		GEM IPL	1	TYCO	1-1419158-8	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY D	
FB1	1			02400113 MINI DIODE 1.0A		GEM EN	1	TYCO	1-1419158-9	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY C	
A16.AA16.B	12			0413-2004-2005 Blind Plug Deutsch GMBH		A14.B	21	TYCO	1-988851-1	1.0-2.5 TERMINAL FEMALE 1-988851-1	
G1.1	1			964167		A182.X	4	TYCO	1123343-1	0.35-0.5 TERMINAL FEMALE 1123343-1	
A190.	1			Cover PBT-GFO		CTCA	1	TYCO	1241728-1	SOCKET HOUSING 3XPO-24MMQS	
AS.X	6			DELPHI SOCKET TERMINAL 12129484		CTCA	1	TYCO	1365543-1	COVER WITH SLIDE 42POS MQS 1355543-1	
FB1	2			E-1579 MINIFUSE WEDGE		S8.A	1	TYCO	1355915-1	CONNECTOR 14PIN FEMALE 1355915-1	
FB1	4			E-439 MINIFUSE WEDGE FOR E-433		A182.X	1	TYCO	1379659-5	CONNECTOR 8PIN FEMALE 1379659-5	
A29	1			ETI20X75 Polyester Label		A16.A	45	TYCO	1393306-1	0.5-0.75 TERMINAL FEMALE GET 1393306-1	
ANTENNA1	1			End Point		A36.X	1	TYCO	1393382-2	CONNECTOR FEMALE 4PIN 1393382-2	
	480			Foam Tape		A16.A	1	TYCO	1438103-0	24 WAY ARM PLUG ASSEMBLY WITHOUT SHORTING BARS	
SD-10,SD-11,SD-12,SD-13,SD-14,SD-15,SD-16,SD-17,SD-18,SD-19,SD-20,SD-21,SD-22,SD-23,SD-24,SD-25,SD-26,SD-29,SD-3,SD-32,SD-33,SD-34,SD-35,SD-36,SD-37,SD-38,SD-4,SD-40,SD-42,SD-43,SD-44,SD-45,SD-46,SD-47,SD-48,SD-5,SD-52,SD-53,SD-54,SD-55,SD-56	58			GENERAL SPLICE		A29.A31	2	TYCO	1452018-1	CONNECTOR FEMALE 6PIN BU-GEH	
A190.	1			Loseley Wound Tape		H7,1,H7.2,Q32,1,Q32.2,Q4.1	6	TYCO	160684-2	0.5-1.0 TERMINAL FEMALE FASTON 2.8x0.5	
L12	0			Sealing MVQ-30		Q13.2	1	TYCO	160915-2	0.5-1.0 TERMINAL FEMALE FASTON 6.3 160915-2	
L12	1			Spot Tape		G1.2,Q1.1,Q1.2,Q13.1	4	TYCO	160915-2	0.5-1.0 TERMINAL FEMALE FASTON 6.3 160915-2	
A183.X1.A190.	8			Think Label Layout		G1.1	2	TYCO	160917-2	1.0-2.5 TERMINAL FEMALE FASTON 160917-2	
	1470			Tyco Sealing Green 0.75mm 967067-1		GEM BR	1	TYCO	2-1419158-0	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY B	
RB6,RB6,RB7,RB8	795		E-387-E	Wrapping Hose		GEM BL	1	TYCO	2-1419158-1	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY A	
XL.XR	4	DELPHI	10717964	FEMALE TERMINAL 1.5-2.5 SEALED E-387-E		GEM IPR	1	TYCO	2-1419158-2	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY E	
XL.XR	22	DELPHI	12158097	FEMALE TERMINAL 0.5-1.0 SEALED		SIADIS	1	TYCO	282106-1	CONNECTOR 4PIN MALE SUPERSEAL 282106-1	
XL.XR	4	DELPHI	12185008	FEMALE TERMINAL 1.5-2.5 SEALED		A14.B	1	TYCO	8-988875-1	CONNECTOR 21PIN FEMALE 8-988875-1	
Q17.	1	DSG-CANUSA	CPX355-48	SHRINK TUBE CPX355-48		A21.X	1	TYCO	828922-1	CAVITY PLUG 1.5/2.54 0MM PIN 828922-1	
D4	1	ELFA	70-042-11	DIODE 70-042-11		AUX.EQUIPMENT.12V.POWER	1	TYCO	926539-6	HOUSING FEMALE 1PIN FASTON 6.3 Q1.1,Q1.2,Q1.3	
RB1,RB2,RB3,RB4	4	EPC	E-379	ISO RELAY WEDGE E-379		A15.A,A15.B,Q10.A,Q15.A	16	TYCO	927768-1	1.1-2.5 TERMINALE FEMALE JPT 927768-1	
RB6,RB6,RB7,RB8	4	EPC	E-380	MICRO-ISO RELAY WEDGE E-380		A15.A,A7, Q10.A,Q15.A,Q17, Q3	23	TYCO	927771-1	0.5-1.1 TERMINALE FEMALE JPT 927771-1	
RB1,RB2,RB3,RB4	4	EPC	E-386	SPACER ISO RELAY WEDGE E-386		A11.X	1	TYCO	929053-1	SHIELD CONNECTOR 32PIN FEMALE MQS	
FB1	1	EPC	RB4100-001	FUSE PANEL ASSEMBLY		A15.A	1	TYCO	963120-1	CONNECTOR 8PIN FEMALE GREY 963120-1	
AS.X	1	ESMA	12110250	HOUSING 18 PIN ID13256		A15.B	1	TYCO	963121-1	CONNECTOR 8PIN FEMALE BROWN 963121-1	
AS.X	2	ESMA	12110251	SECONDARY LOCK ID13257		A183.X1.A190.	2	TYCO	967640-1	CONNECTOR 4PIN FEMALE 967640-1	
XL.XR	2	ESMA	15344010	CONNECTOR FEMALE 27 PIN ESMA 15344010		A11.X	1	TYCO	968265-1	CONNECTOR 32PIN FEMALE MQS	
XL.XR	2	ESMA	FT10	RUBBER GROMMET FT10		X81.	1	TYCO	1-962343-1	HOUSING 3 PIN 4113015	
A22.2	1	FCI	14005601	CONNECTOR 2PIN FEMALE BLACK 14005601		S8.A	10	TYCO	1326028-5	FEMALE TERMINAL 0.5-1.0	
A22.1	1	FCI	14005611	CONNECTOR 2PIN FEMALE BROWN 14005611		A29.A31	2	TYCO	1452020-1	COVER BU-GEH	
A1	1	FCI	211BC051004	FRAME FEM. COMPL. 211BC051004 BEIGE		A29.A31	2	TYCO	1452021-1	FRAME BU-GEH	
A2	1	FCI	211BC056004	FRAME FEM. COMPL. 211BC056004 BLUE		X15	2	TYCO	173631-1	AWG16-20 Female 070 MLC	
A1,B1,C1,C2,D1,D2	89	FCI	211CC2S1120	0.35-0.75 TERMINAL FEMALE 211CC2S1120		X15	1	TYCO	174921-1	MLC 070 3 Pin Female	
A2	1	FCI	211PC1235004	CONNECTOR 12PIN FEMALE 211PC1235004 GREEN	9148269 (VOLVO)	A180.A,A180.B	30	TYCO	175205-1	0.40I AWG22-AWG18 Terminal Female	
B2	1	FCI	211PC12356004	CONNECTOR 12PIN FEMALE 211PC12356004 BLUE	9148268 (VOLVO)	A180.A,A180.C	20	TYCO	175206-1	0.70I AWG22-AWG18 Terminal Female	
E2	1	FCI	211PC12359004	CONNECTOR 12PIN FEMALE 211PC12359004 WHITE	9148265 (VOLVO)	X84.	2	TYCO	180351-5	3.0-6.0 FASTON FEMALE	
D1,D2	2	FCI	211PC182S2004	CONNECTOR 18PIN FEMALE 211PC182S2004 RED	9148272 (VOLVO)	A180.C	1	TYCO	917978-1	CONNECTOR TYCO 12 PIN FEMALE	
C1,C2	2	FCI	211PC182S4004	CONNECTOR 18PIN FEMALE 211PC182S4004 YELLOW	9148273 (VOLVO)	A180.B	1	TYCO	917981-1	CONNECTOR TYCO 16 PIN FEMALE	
A1	1	FCI	211PC182S5004	CONNECTOR 18PIN FEMALE 211PC182S5004 GREEN	9148275 (VOLVO)	A180.A	1	TYCO	917992-1	CONNECTOR TYCO 26 PIN FEMALE	
B1	1	FCI	211PC182S6004	CONNECTOR 18PIN FEMALE 211PC182S6004 BLUE	9148274 (VOLVO)	H7,1,H7.2,Q32,1,Q32.2,Q4.1	6	TYCO	925387-1	Faston 1 Pin Insulation Sleeve 2.8 Clear	
O3.	1	FCI	60210401	CONNECTOR 7PIN FEMALE 60210401		A183.X1.A190.	8	TYCO	962885	0.2-0.5 MQS RECEPTACLE FEMALE 962885	
Q10.A,Q15.A	2	FCI	60211501	CONNECTOR 7PIN FEMALE 60211501		X81.	3	TYCO	962943-2	MICROMER 0.5-1.0	
Q20.	1	FCI	60231111	CONNECTOR 7PIN FEMALE 60231111		A11.X,CTC4	43	TYCO	963715-1	SOCKET TERMINAL MQS 0.50-0.75	
A1,B1,C1	7	FCI	9148072	1.0-2.0 FEMALE TERMINAL 1.5 SICMA 2		CTCA	3	TYCO	968073-2	Q-LOCK FEMALE 2.5-4.0	
A2,B2	14	FCI	9148079	0.3-1.0 SICMA 2 FEMALE TERMINAL		A21.X	7	YAZAKI	7116-4102-02	0.35-0.5 TERMINAL FEMALE 7116-4102-02	
A2,B2,E2	8	FCI	9148080	1.0-3.0 FEMALE TERMINAL 2.8 SICMA 2		A21.X	7	YAZAKI	7158-3030-50	SWISS YAZAKI ID1 19-1.70 7158-3030-50	
E2	3	FCI	9148081	3.0-5.0 FEMALE TERMINAL 2.8 SICMA 2		A21.X	1	YAZAKI	7283-5685-10	HOUSING 8 PIN	
Q20.	1	G&HARTMAN	949678	0.5-1.0 TERMINAL FEMALE STD TIMER 949678		Q2.	1	YAZAKI	7283-6455-40	CONNECTOR 10PIN FEMALE 7283-6455-40	
Q20.	2	G&HARTMAN	949681	4.1-6.0 TERMINAL FEMALE STD TIMER 949681		A3.	1	YAZAKI	7283-6457-40	CONNECTOR 10PIN FEMALE 7283-6457-40	
PE3C.2	1	G&HARTMAN	970783	0.35-1.0 Terminal Ring M6 970783		A29.A31, Q2, Q20, Q7.	21	YAZAKI	9168502	0.5 TERMINAL FEMALE 9168502	
PE1&2C.2,PE3C.1,PE4B.1,PE4C.5,PE4C.6	5	G&HARTMAN	970789	1.5-2.5 TERMINAL RING M6 970789		Q2, Q20, Q7.	9	YAZAKI	9168504	0.75-1.0 TERMINAL FEMALE 9168504	
PE1&2B.1,PE1&2B.2,PE1&2C.1,PE4B.2,PE4C.1,PE4C.2,PE4C.3,PE4C.4	8	G&HARTMAN	970794	RING TERMINAL M6 2.6-6.0		GEM.BL,GEM.BR,GEM.EN,GEM.IPL	18	YAZAKI	9168510	FEMALE TERMINAL 0.75-1.0 GEM IPR.Q7	
C117,C122,C123,C124,C17,C18,C20,C21,C24,C31,C54,C55	12	HELLERMANN	CBT30MR	CLIP EDGE WICABLE TIE CBT30MR		AS.GEM.BL,GEM.EN	13	YAZAKI	9168512	FEMALE TERMINAL 1.5-2.5	
A29.A31	2	HELLERMANN	T18R SV-1000	CABLE TIE T18R SV-1000							
C401,C402	2	HELLERMANN TYTON	156-00049	Clip Edge							
A802	1	HELLERMANN TYTON	CABLE TIE T30L SV-500	CABLE TIE T30L SV-500							
A628	1	HELLERMANN TYTON	117-00000	Shim							
C325	1	HELLERMANN TYTON	133-00391	CLIPS TS050SWSPSE.2							
C462,C463,C464,C465,C466	5	HELLERMANN TYTON	TS0R-F17	CLIPS TS0R-F17 Black							
Q23.	1	JETPRESS	434.00.22.0	CONNECTOR 8 PIN FEMALE 434.00.22.0							
Q22.	1	JETPRESS	434.00.22.5	CONNECTOR 8 PIN FEMALE 434.00.22.5							
Q18.	1	JETPRESS	434.00.22.6	CONNECTOR 8 PIN FEMALE 434.00.22.6							
G1.1	1	KB COMPONENTS	5516410	CONNECTOR 2PIN FEMALE FASTON 5516410							
X84	1	KB COMPONENTS	5518520	FASTON HOUSING BLACK 2 PIN FEMALE							
RLY1,RLY2,RLY3,RLY4,RLY5,RLY6	6	KG KNUITSSON HANDELS	HELLA 4RD003520137	12V Relay MINI							
RLY15,RLY16,RLY17,RLY18,RLY19,RLY20,RLY21,RLY22,RLY24,RLY26	10	KG KNUITSSON HANDELS	HELLA 4RD007814017	12V Relay MICRO w Resistor	TYCO V23074-A1001-AA03						
Q17.	1	LEAR	16840.562.699	CONNECTOR FEMALE 8PIN 16840.562.699							
SD-57,SD-58	2	LEAR	25770.123.178	SPLICE LEAR 25770.123.178							
Q7.	1	LEAR	98AG-14489-TTB	CONNECTOR 16PIN FEMALE LEAR							
FB1	1	LEAR	F2DB-14474-AA	MINIFUSE TERMINAL 4.0-6.0							
FB1	55	LEAR	F2DB-14474-CA	MINIFUSE TERMINAL 1.5-2.5							
FB1	36	LEAR	F2DB-14474-DA	MINIFUSE TERMINAL 0.5-1.0							
RB1,RB2,RB3,RB4	10	LEAR	F4UB-14474-AA	ISO TERMINAL 4.0-6.0							
SD-57	1	LITTELFUSE	L170A04	DIODE 10A 400V							
Fa2b,Fa4b	2	LITTELFUSE	029707.5	MINIFUSE 7.5AMP/029707.5							
Fa13,Fa19,Fa21,Fa24,Fa27,Fa30,Fa31,Fa33,Fa35,Fa39,Fa40,Fa41,Fa47,Fa48,Fa54	15	LITTELFUSE	297005	MINIFUSE 5AMP/297005							
Fa11,Fa12,Fa14,Fa17,Fa18,Fa22,Fa30,Fa37,Fa44,Fa49,Fa50,Fa51,Fa52,Fa53	14	LITTELFUSE	297010	MINIFUSE 10AMP 297010							
Fa107,Fa16,Fa20,Fa36,Fa38,Fa42,Fa43	7	LITTELFUSE	297015	MINIFUSE 15AMP 297015							
Fa15,Fa23,Fa28,Fa45	4	LITTELFUSE	297020	MINIFUSE 20AMP 297020							
Fa10,Fa4,Fa7,Fa8,Fa9	5	LITTELFUSE	299020	MAXIFUSE 20AMP 299020							
Fa3	1	LITTELFUSE	299025	MAXIFUSE 25A 299025							
Fa1	1	LITTELFUSE	299030	MAXIFUSE 30AMP 299030							
Fa2	1	LITTELFUSE	299040	MAXIFUSE 40AMP 299040							
Q18, Q22, Q23	13	MOLEX	0988952014	0.35. 1.0 TERMINAL FEMALE 0988952014							
A35.X	1	MOLEX	43020-2000	CONNECTOR FEMALE 20PIN MICROFIT							
A35.X	18	MOLEX	43031-0001	0.35-0.5 TERMINAL FEMALE MICROFIT							
RB2,RB3,RB4	7	REPRO	F2AB-14474-BA	ISO TERMINAL 1.5-2.5							
RB1,RB2,RB3,RB4	16	REPRO	F2AB-14474-CA	ISO TERMINAL 0.5-1.0							
FB1	8	REPRO	F6S8-14474-HA	MAXIFUSE TERMINAL 1.5-2.5							
FB1	8	REPRO	F6S8-14474-JA	MAXIFUSE TERMINAL 4.0-6.0							
RB6,RB7,RB8	22	REPRO	F6S8-14474-MA	1/2-ISO SMALL TERM. 0.5-0.75							
RB6,RB7,RB8	14	REPRO	F6S8-14474-NA	1/2-ISO LARGE TERM. 1.5-2.5							
RB6,RB7	4	REPRO	F6S8-14474-RA	1/2-ISO SMALL TERM. 1.5-2.5							
RB6,RB7,RB8	10	REPRO	F6S8-14474-SA	1/2-ISO LARGE TERM. 0.5-0.75							
	2170	SCHLEMMER	1926304	CORRUGATED TUBE BLACK Ø 7.1/5.0 SLIT							
	130	SCHLEMMER	1926307	CORRUGATED TUBE BLACK Ø 9.9/6.9 SLIT							
C36	1	SCHLEMMER	8207366	P-CLIPS 40mm							
C32	1	SIEFVERT SKRUFV	98AG-14A390-VD	CABLE PROTECTOR Y SHAPE							
A7.	1	Sisco Holz GmbH	1096518	HOUSING 8 PIN BLACK V19P/H88K*Y							
Q21.	1	TESA	51608-09-15	TAPE TEXTILE TESA 51608-09-15							
	1	TYCO	0-1419158-6	CONNECTOR 6PIN FEMALE 0-1419158-6							

HARNESSES		Document type		
MSV		Prepared by		
A306 MY2011 Pre-series		File name		
Approved by	A1	Sheet Size	Created	Change Date
			2010/07/08	2010/11/26
A306 HARNESSES DASH LHD		Description	Drawing no	Status
			541.4020.B	6 of 6 DRAFT

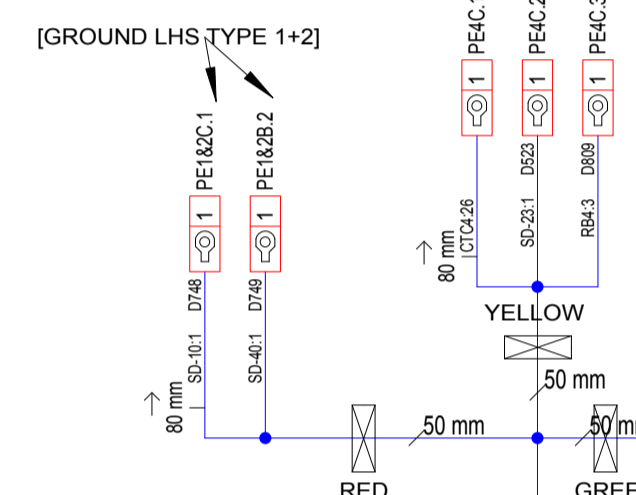
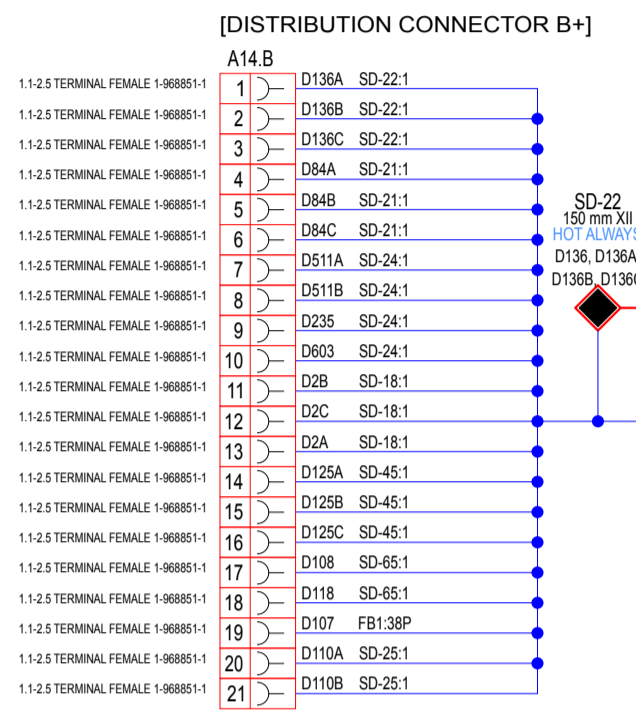


CABLES TWISTED 40±2 TURNS/M
 255+256, 257+258, 336+337, 338+339, 341+342, 352+353, 354+355, 357+358, 426+427, 428+429, 434H+434L,
 438H+438L, 654H+654L, 657H+657L, 658H+658L, 797H+797L, 806H+806L, 839H+839L, 855H+855L,
 867H+867L, 898H+898L, 902H+902L, 903H+903L, 912H+912L

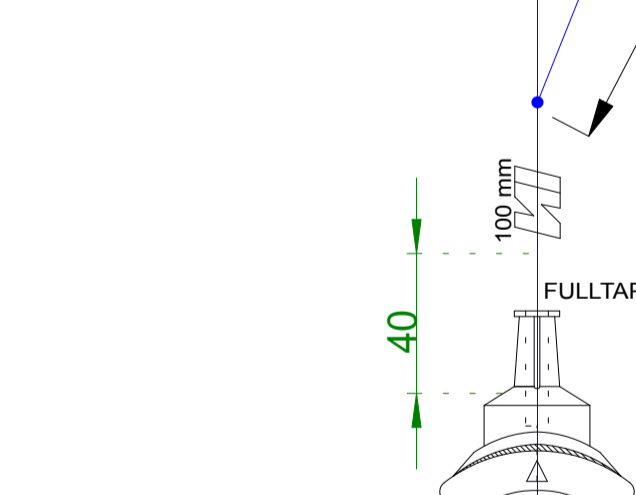
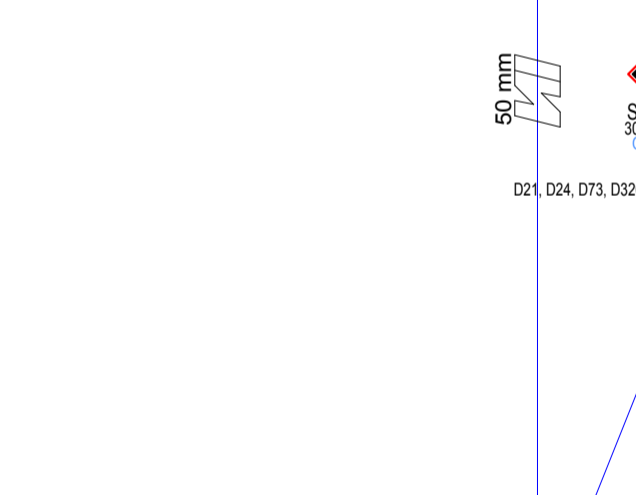
CABLES TWISTED 30±2 TURNS/M
 866+868

CABLES TO BE COVERED BY YELLOW PVC-TUBE
 336+ 337, 338+339

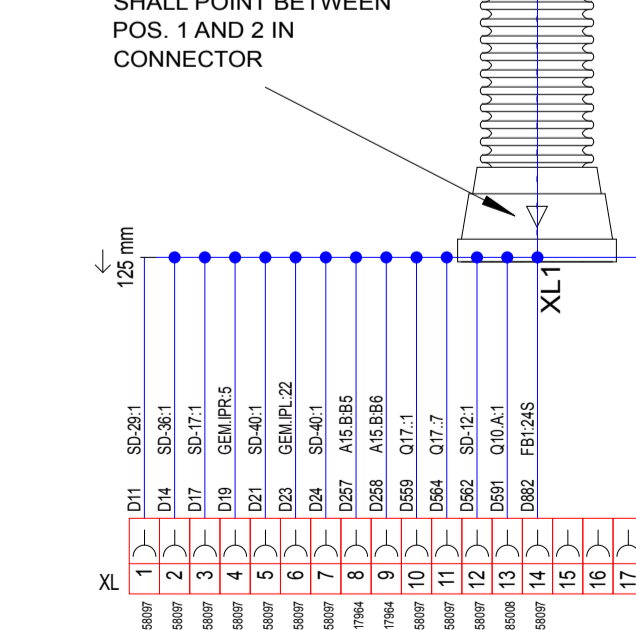
takeout for the power distribution box should be at the halfway point of the fusebox



ALL GROUND LUGS SHALL HAVE SOLDERED CRIMP AND COVERED BY SHRINK TUBE 25MM LONG



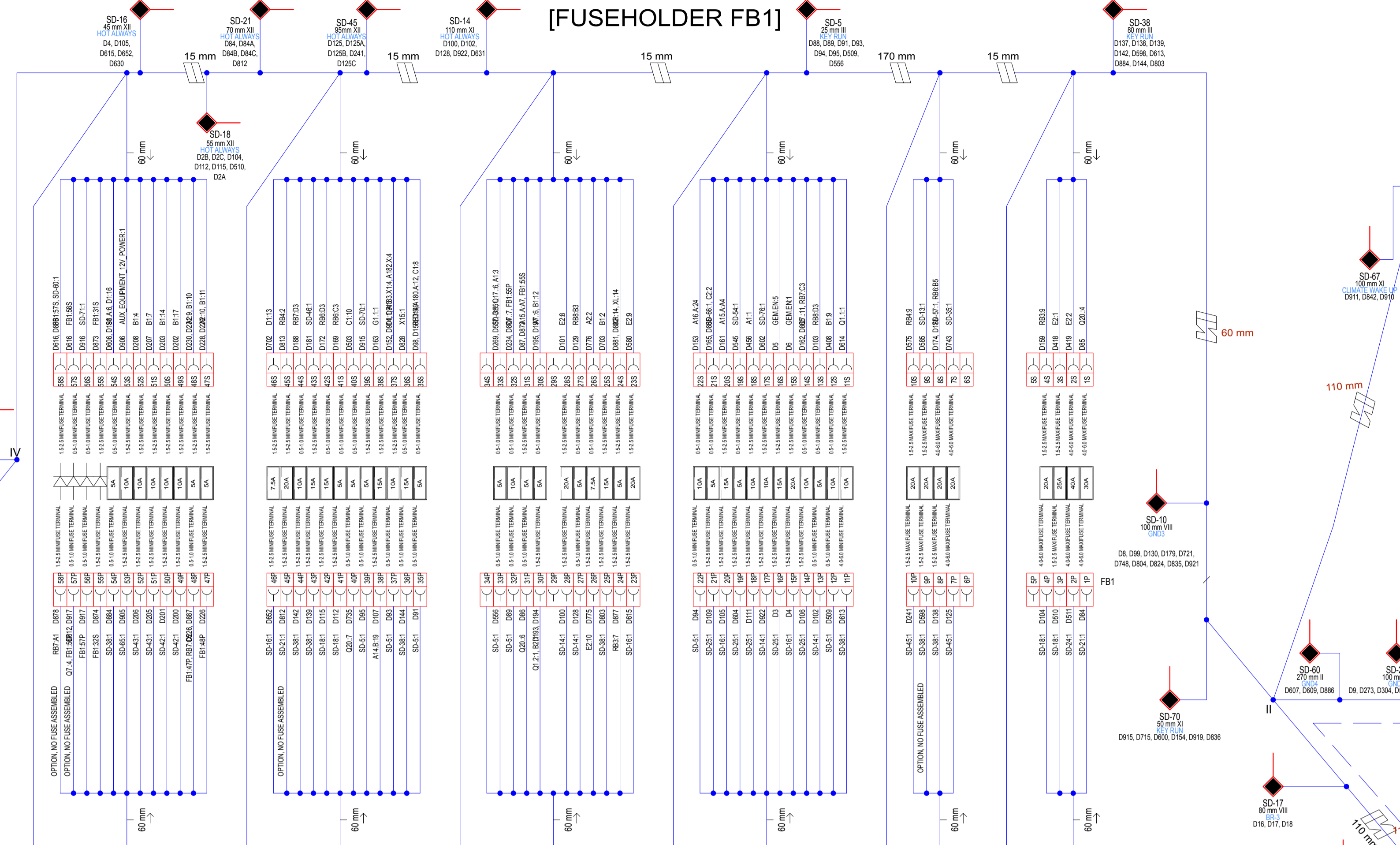
ARROW ON GROMMET SHALL POINT BETWEEN POS. 1 AND 2 IN CONNECTOR



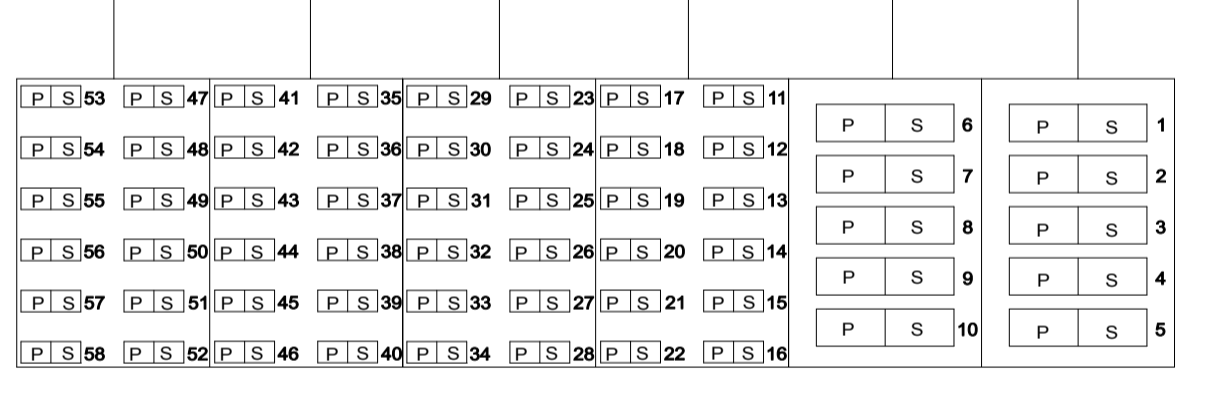
TPMS Connector to be Tied-back (with paper tape) to the main branch

[TPMS]

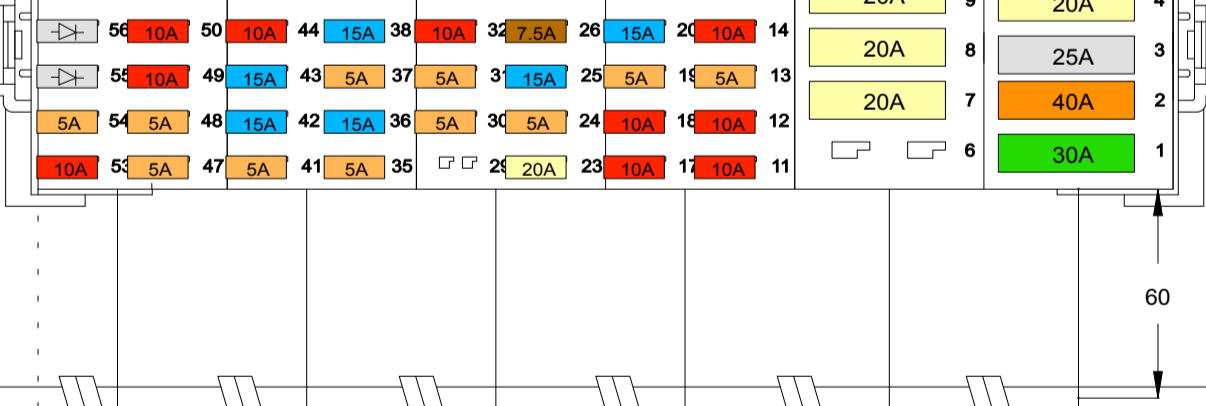
16.05.2011 13:35



ASSEMBLY FUSE-HOLDER VIEWED FROM CABLE-SIDE

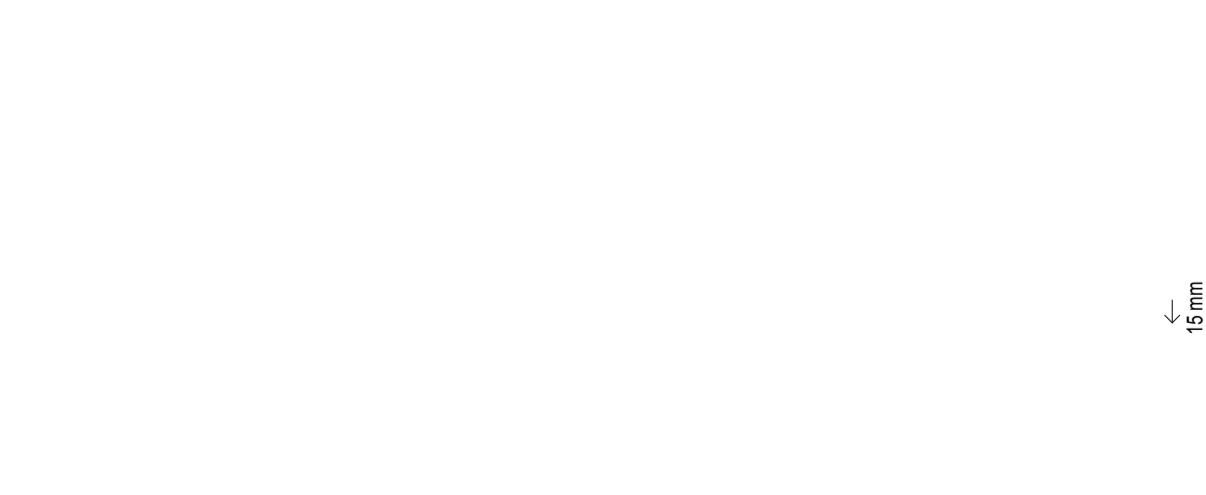


ASSEMBLY FUSE-HOLDER VIEWED FROM FUSE-SIDE



SPOT-TAPE TO SEPARATE BRANCHES

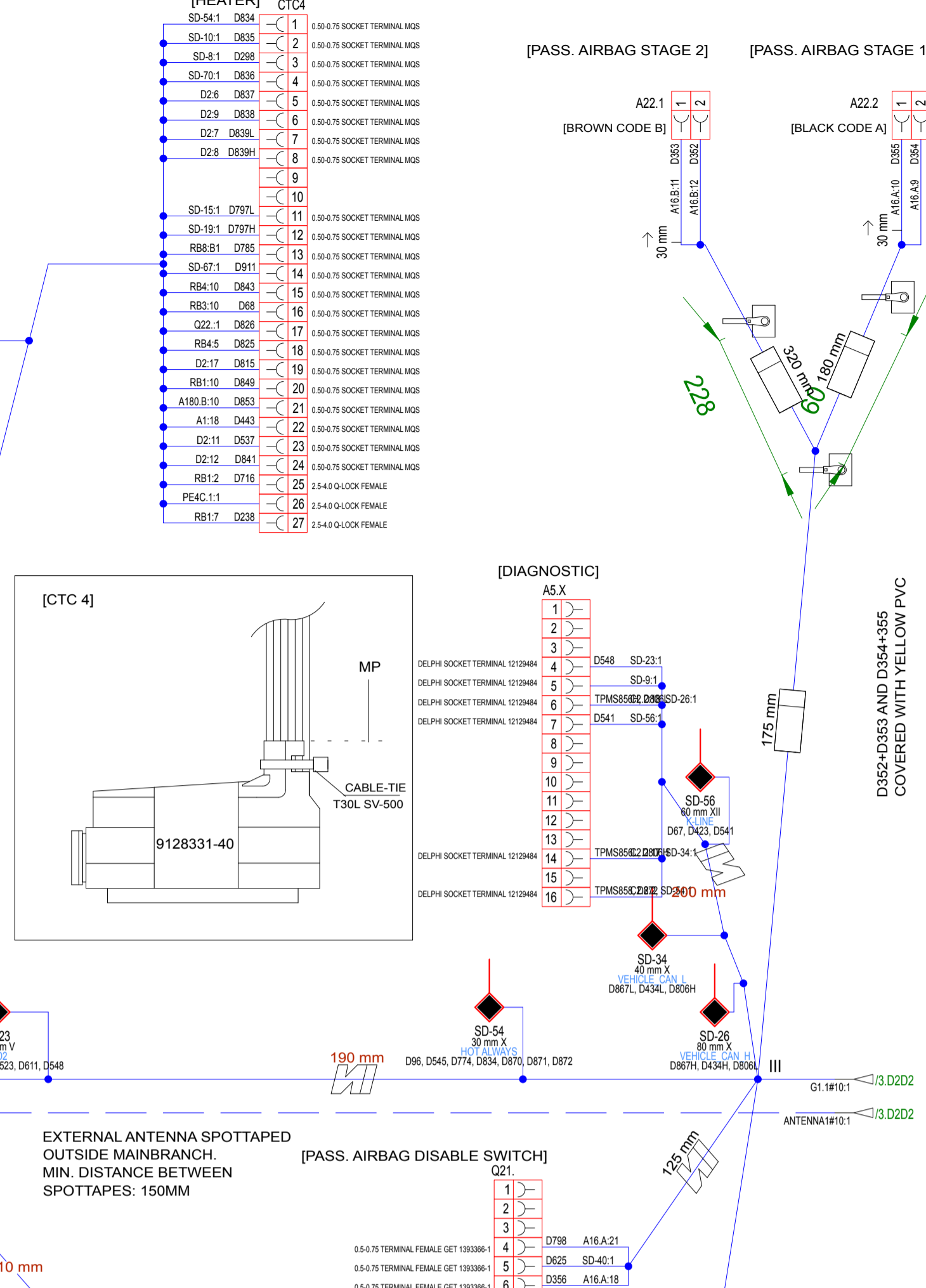
WIRES ROUTED IN TO FUSE-HOLDER ACC. TO FIGURE



TPMS Connector to be Tied-back (with paper tape) to the main branch

[TPMS]

16.05.2011 13:35



EXTERNAL ANTENNA SPOTTAPED OUTSIDE MAINBRANCH. MIN. DISTANCE BETWEEN SPOTTAPES: 150MM

[PASS. AIRBAG STAGE 2]

[PASS. AIRBAG STAGE 1]

[DIAGNOSTIC] AS X

[CTC 4]

[PASS. AIRBAG DISABLE SWITCH]

[TPMS RESET]

[BMI RESET]

ANTENNA#101

ANTENNA#102

ANTENNA#103

ANTENNA#104

ANTENNA#105

ANTENNA#106

ANTENNA#107

ANTENNA#108

ANTENNA#109

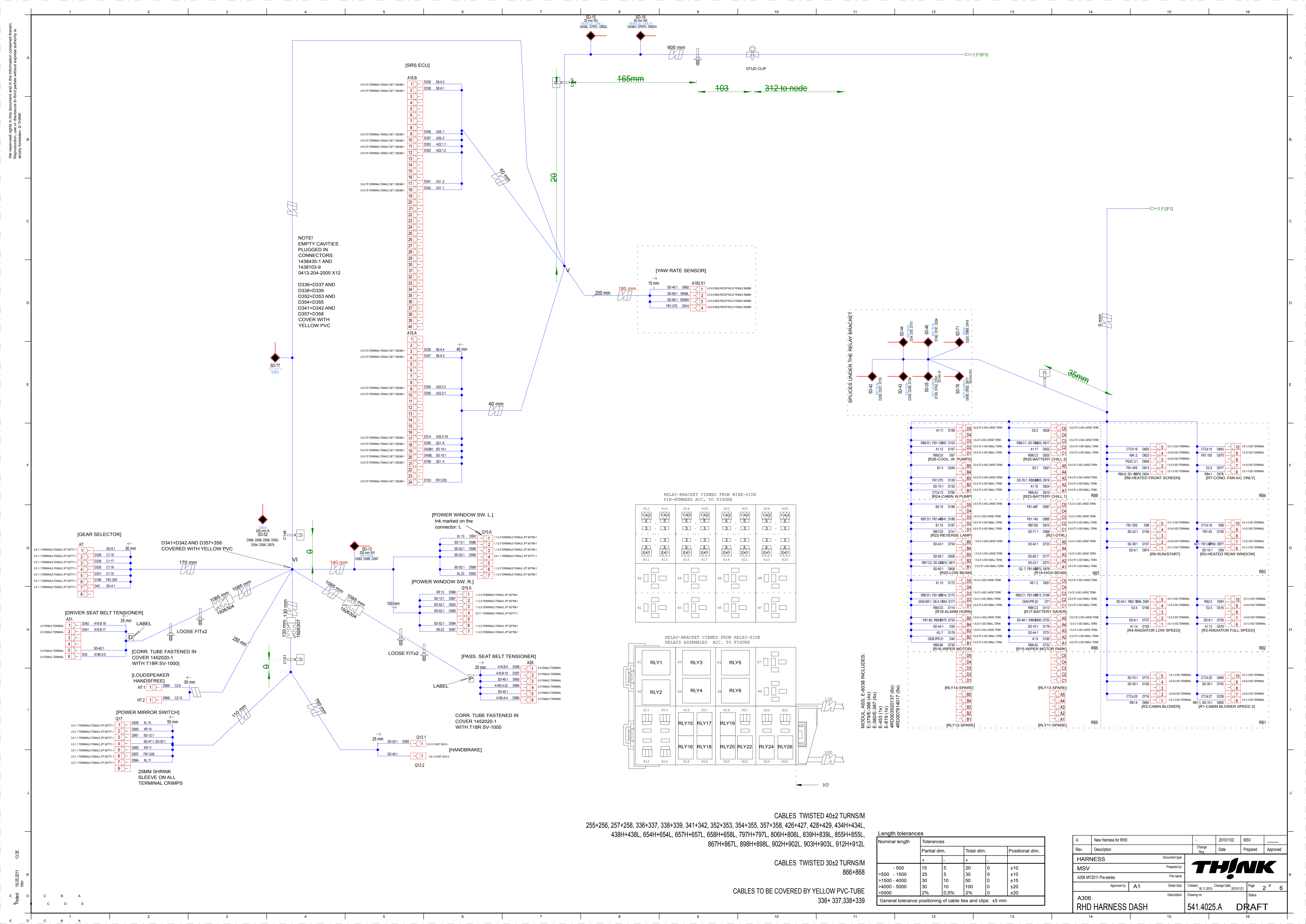
16.05.2011 13:35

Nominal length	Tolerances		
	Partial dim.	Total dim.	Positional dim.
- 500	+ 15	- 5	+ 0
>500 - 1500	+ 25	- 10	+ 0
>1500 - 4000	+ 30	- 15	+ 0
>4000 - 5000	+ 30	- 10	+ 0
>5000	+ 2%	- 0.5%	+ 0

General tolerance positioning of cable ties and clips: ±5 mm

Rev.	Description	Change Req.	Date	MSV	Prepared	Approved
A1	New Harness for RHD	-	20101102	MSV		

THINK
 A306 MY2011 Pre-series
 A1
 541.4025.A
 DRAFT



NOTE!
EMPTY CAVITIES
PLUGGED IN
CONNECTORS:
1438435-1 AND
1438103-9
0413-204-2005 X12

D336+D337 AND
D338+D339
D352+D353 AND
D354+D355
D341+D342 AND
D357+D358
COVER WITH
YELLOW PVC

[GEAR SELECTOR]
D341+D342 AND D357+358
COVERED WITH YELLOW PVC

[DRIVER SEAT BELT TENSIONER]
[CORR. TUBE FASTENED IN
COVER 1452020-1
WITH T16R SV-1000]
[LOUDSPEAKER
HANDSFREE]
[POWER MIRROR SWITCH]
25MM SHRINK
SLEEVE ON ALL
TERMINAL CRIMPS

[POWER WINDOW SW. L.]
Ink marked on the
connector: L

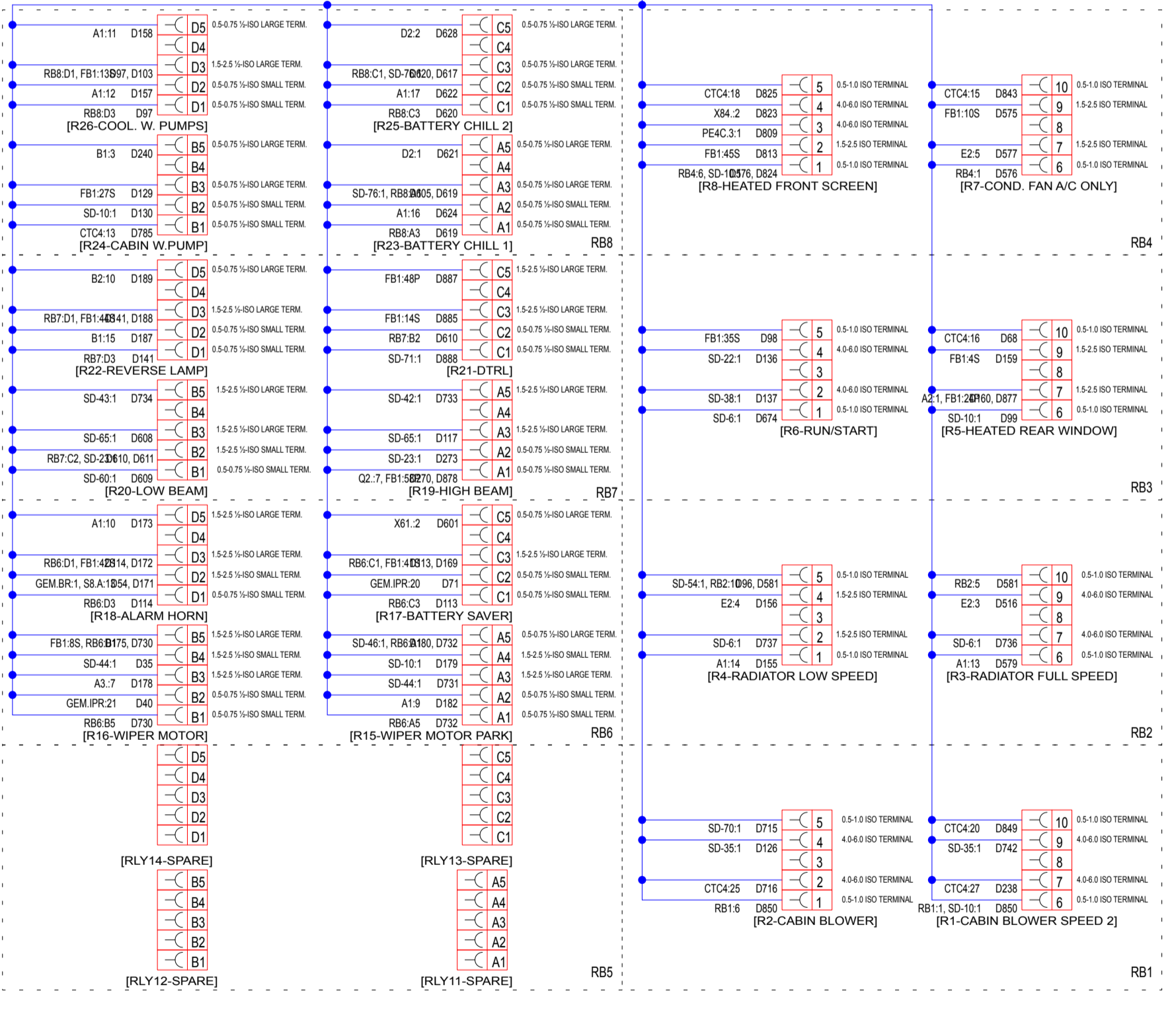
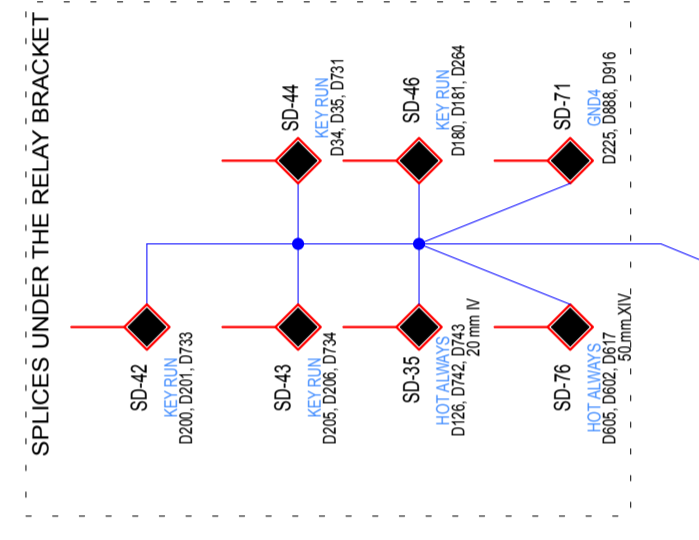
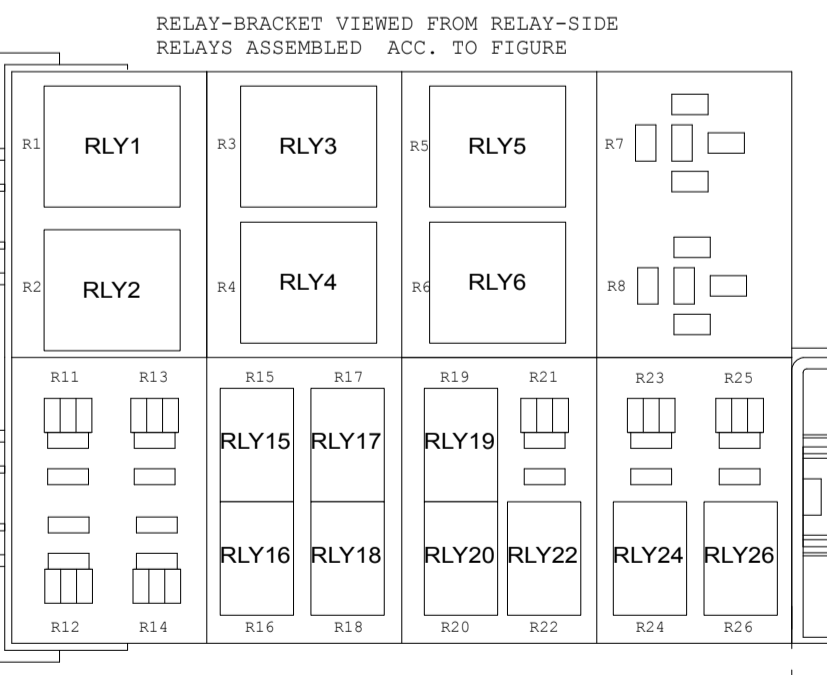
[POWER WINDOW SW. R.]

[PASS. SEAT BELT TENSIONER]
CORR. TUBE FASTENED IN
COVER 1452020-1
WITH T16R SV-1000

[HANDBRAKE]

RELAY-BRACKET VIEWED FROM WIRE-SIDE
PIN-NUMBERS ACC. TO FIGURE

R12	R14	R16	R18	R20	R22	R24	R26
1 142	1 142	1 142	1 142	1 142	1 142	1 142	1 142
2 3	2 3	2 3	2 3	2 3	2 3	2 3	2 3
R11	R13	R15	R17	R19	R21	R23	R25
1 241	1 241	1 241	1 241	1 241	1 241	1 241	1 241
2 5	2 5	2 5	2 5	2 5	2 5	2 5	2 5



CABLES TWISTED 40±2 TURNS/M
255+256, 257+258, 336+337, 338+339, 341+342, 352+353, 354+355, 357+358, 426+427, 428+429, 434H+434L,
438H+438L, 654H+654L, 657H+657L, 658H+658L, 797H+797L, 806H+806L, 839H+839L, 855H+855L,
867H+867L, 898H+898L, 902H+902L, 903H+903L, 912H+912L

CABLES TWISTED 30±2 TURNS/M
866+868

CABLES TO BE COVERED BY YELLOW PVC-TUBE
336+ 337,338+339

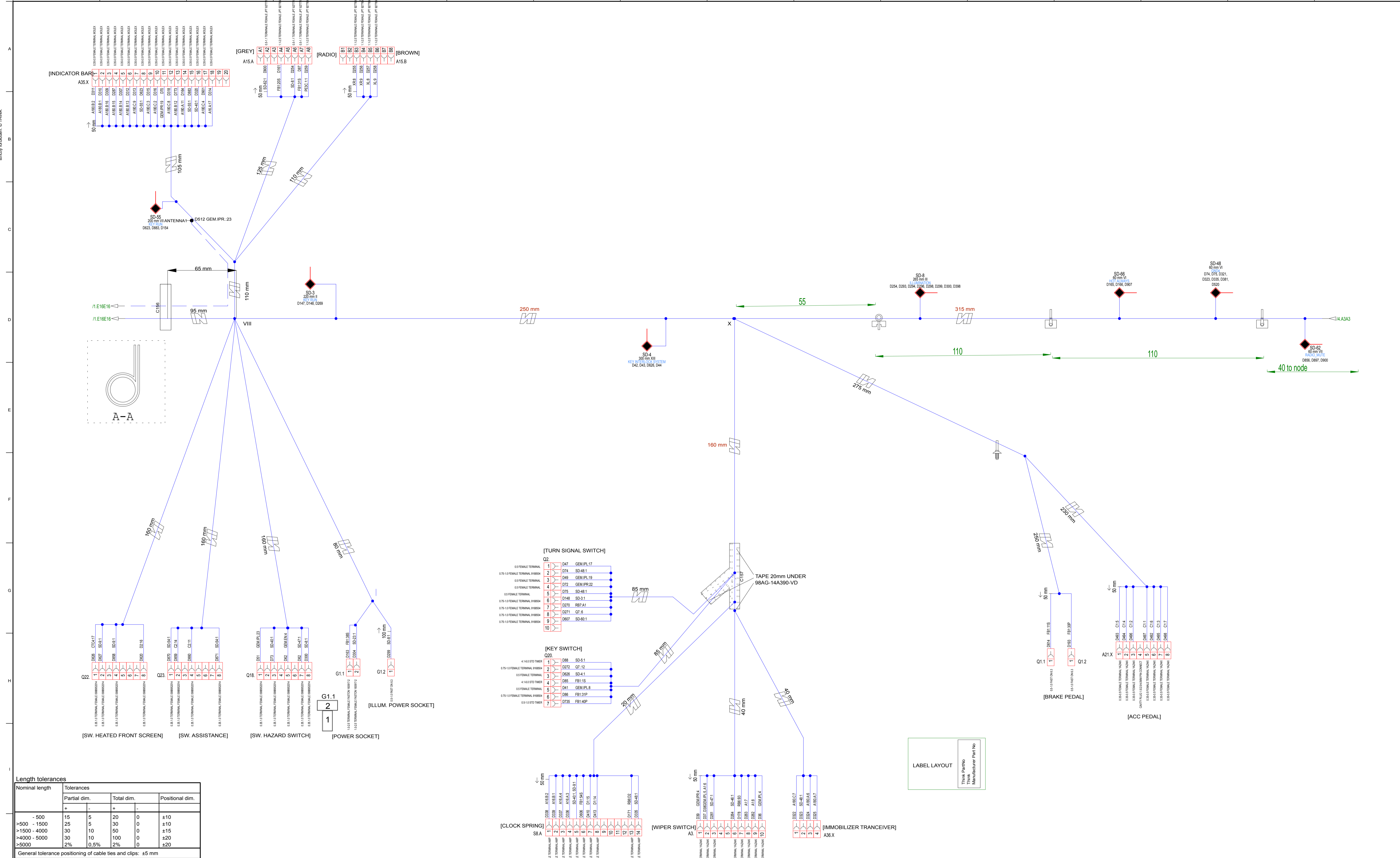
Length tolerances

Nominal length	Tolerances		
	Partial dim.	Total dim.	Positional dim.
- 500	15	5	±10
>500 - 1500	25	5	±10
>1500 - 4000	30	10	±15
>4000 - 5000	30	10	±20
>5000	2%	0,5%	±20

General tolerance positioning of cable ties and clips: ±5 mm

A	New Harness for RHD	20101102	MSV	
Rev.	Description	Change	Date	Prepared
HARNESS		Document type		
MSV		Prepared by		
A306 MY2011 Pre-series		File name		
Approved by	A1	Sheet Size	Created	Change Date
A306		RHD HARNESS DASH		541.4025.A
DRAFT		Page 2 of 6		

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Length tolerances

Nominal length	Tolerances		
	Partial dim.	Total dim.	Positional dim.
- 500	15	20	±10
>500 - 1500	25	30	±10
>1500 - 4000	30	50	±15
>4000 - 5000	30	100	±20
>5000	2%	0,5%	±20

General tolerance positioning of cable ties and clips: ±5 mm

CABLES TWISTED 40±2 TURNS/M
 255+256, 257+258, 336+337, 338+339, 341+342, 352+353, 354+355, 357+358, 426+427, 428+429, 434H+434L,
 438H+438L, 654H+654L, 657H+657L, 658H+658L, 797H+797L, 806H+806L, 839H+839L, 855H+855L,
 867H+867L, 898H+898L, 902H+902L, 903H+903L, 912H+912L

CABLES TWISTED 30±2 TURNS/M

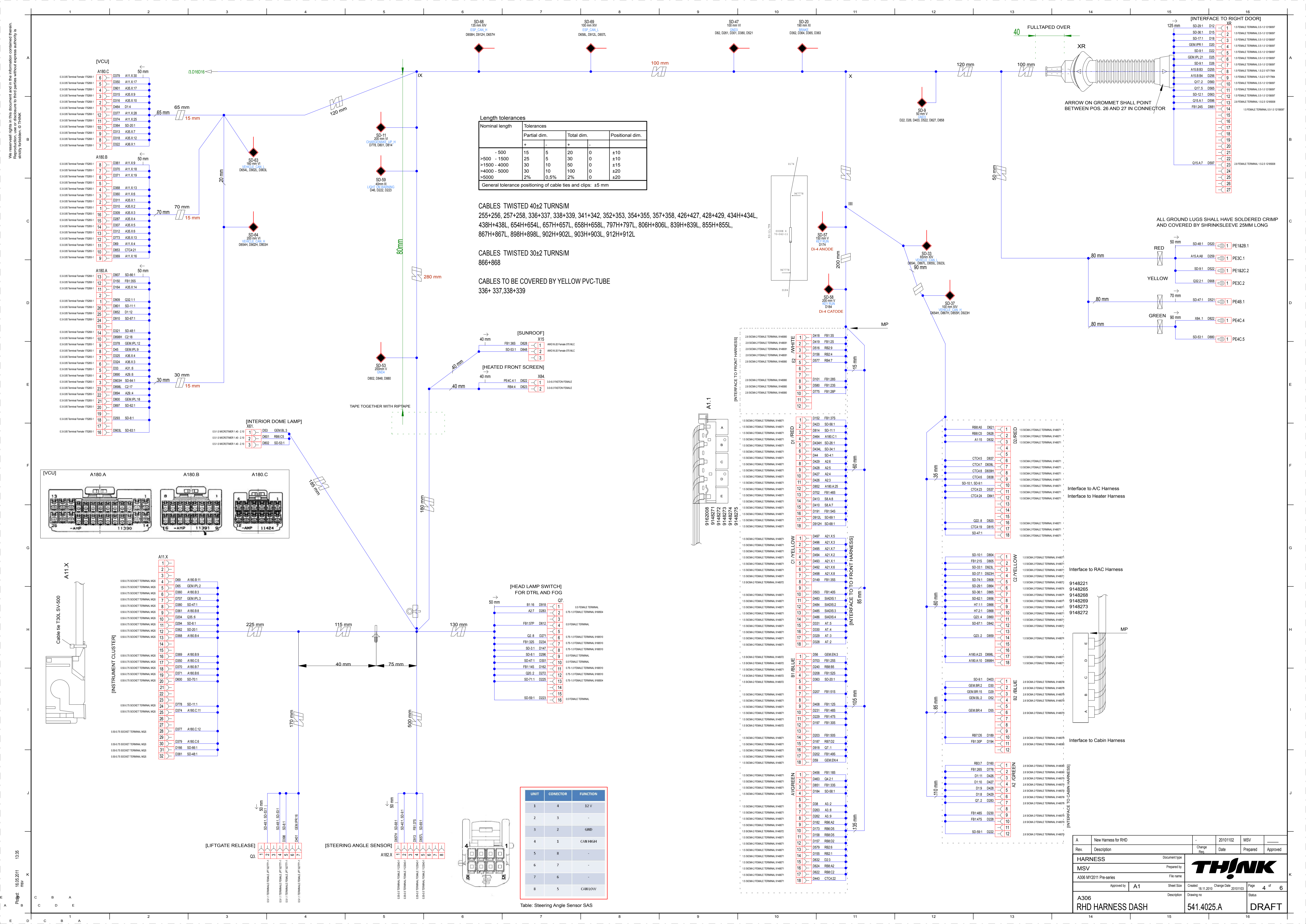
866+868

CABLES TO BE COVERED BY YELLOW PVC-TUBE
 336+ 337,338+339

LABEL LAYOUT
 Think Parts
 Manufacturer Part No

A	New Harness for RHD	-	20101102	MSV	
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNES		Document type		THINK	
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A1	Sheet Size	Created	Change Date	Page
A306		Description	18.11.2010	20101121	3 of 6
RHD HARNESS DASH		541.4025.A	Status		DRAFT

Project: 16.05.2011 13:35



Length tolerances

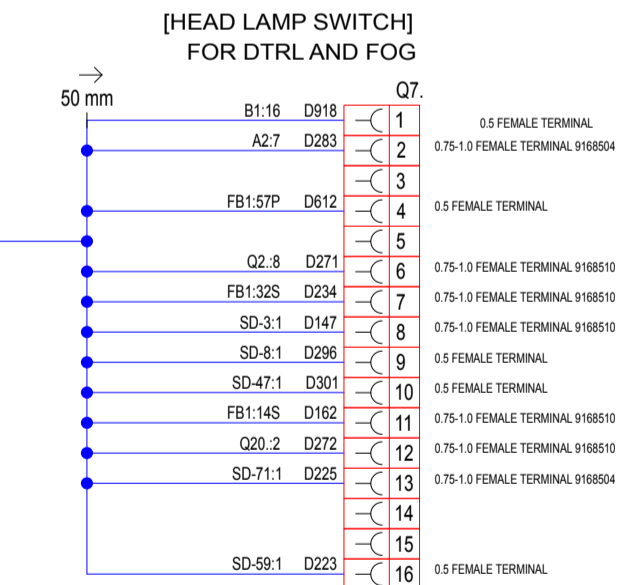
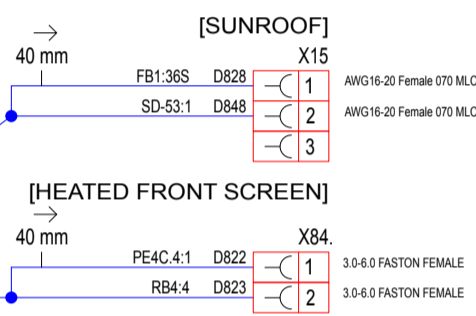
Nominal length	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0.5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

CABLES TWISTED 40±2 TURNS/M
 255+256, 257+258, 336+337, 338+339, 341+342, 352+353, 354+355, 357+358, 426+427, 428+429, 434H+434L,
 438H+438L, 654H+654L, 657H+657L, 658H+658L, 797H+797L, 806H+806L, 839H+839L, 855H+855L,
 867H+867L, 898H+898L, 902H+902L, 903H+903L, 912H+912L

CABLES TWISTED 30±2 TURNS/M
 866+868

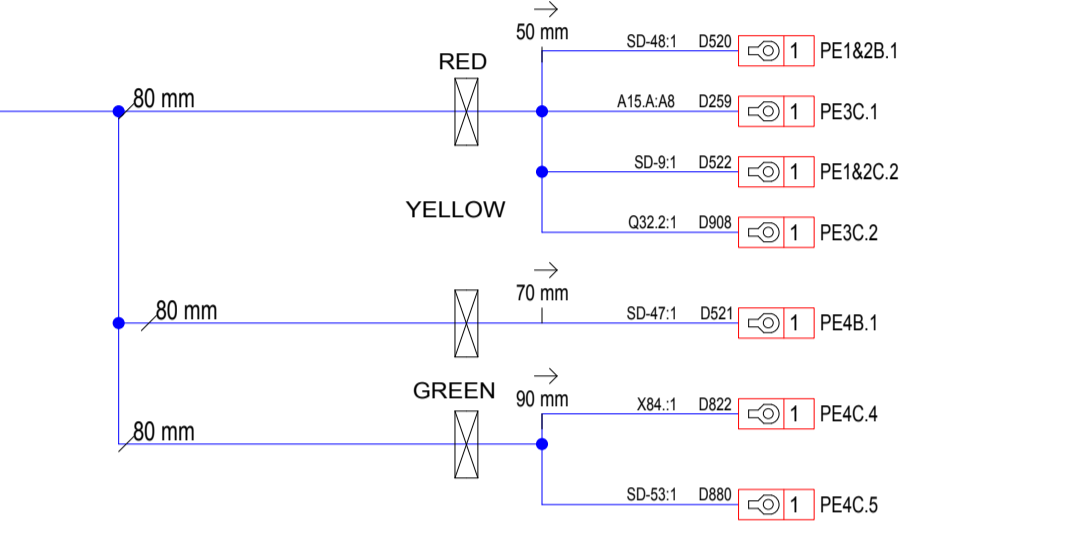
CABLES TO BE COVERED BY YELLOW PVC-TUBE
 336+ 337, 338+339



UNIT	CONNECTOR	FUNCTION
1	4	32 V
2	3	-
3	2	GNID
4	1	CAM HIGH
5	8	-
6	7	-
7	6	-
8	5	CAM LOW

Table: Steering Angle Sensor SAS

ALL GROUND LUGS SHALL HAVE SOLDERED CRIMP AND COVERED BY SHRINKSLEEVE 25MM LONG



Interface to A/C Harness
 Interface to Heater Harness

Interface to RAC Harness

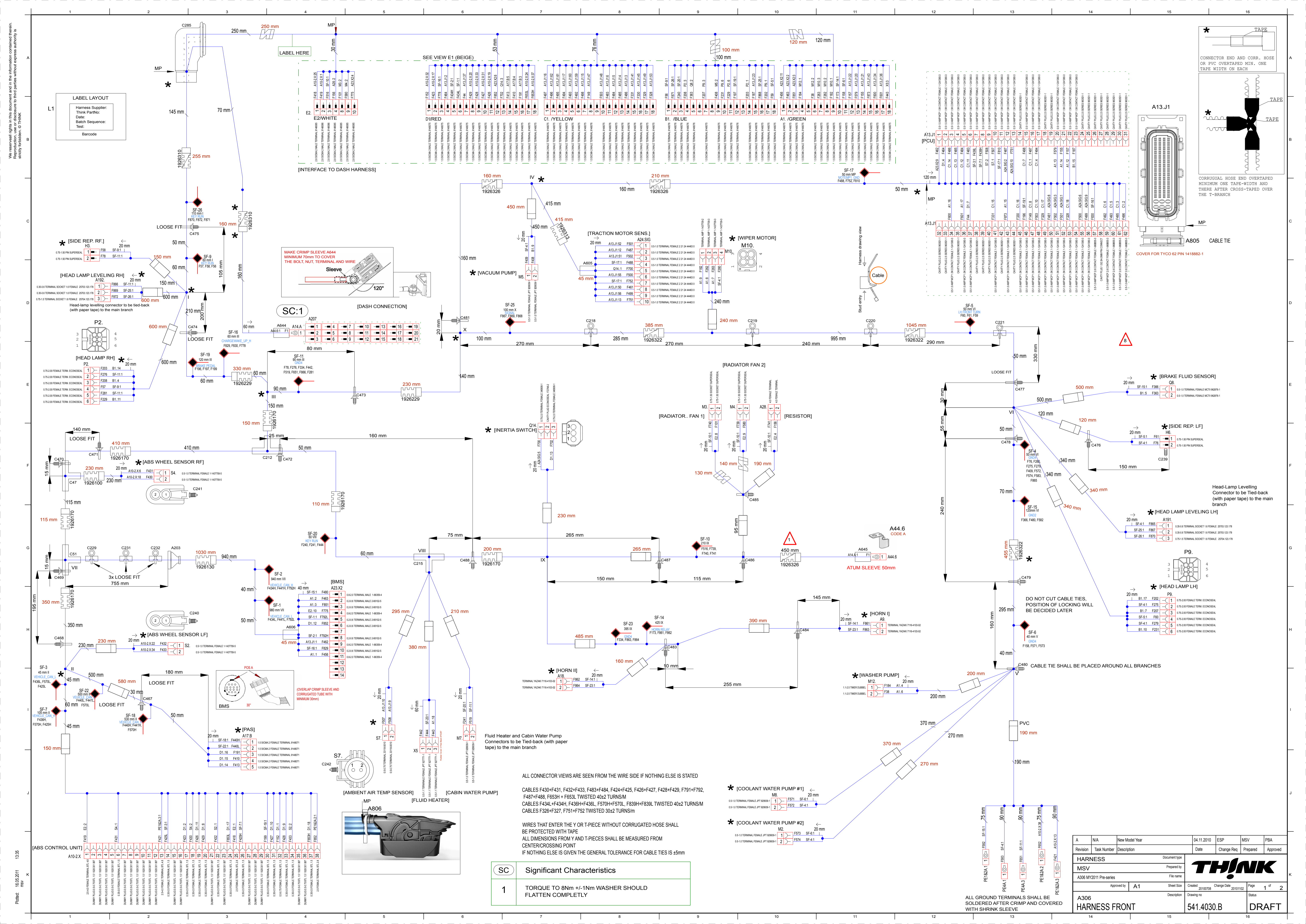
Interface to Cabin Harness

Rev.	Description	Change Req.	Date	MSV	Prepared	Approved
1	HARNES		20101102	MSV		
A306 MY2011 Pre-series		Drawing No.		Status		Page 4 of 6
A306 RHD HARNESS DASH		541.4025.A		DRAFT		

Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)	Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)	Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)																																																																																																																																																																																						
D2C	R2	RD	2.50 mm²	SD-18	11 C1C4C4	A14.8	13 D1D1D1	130	D164	R2	GN	0.50 mm²	A18A	11 C1A0D2	AS3.X	14 D3A2A2	1735	D479	R2	BR	4.00 mm²	PE162B2	11 E1E1E1	SD-40	11 F2F2F2	290																																																																																																																																																																																						
D2D	R2	RD	2.50 mm²	SD-18	11 C1C4C4	A14.8	13 D1D1D1	130	D165	R2	RD	0.50 mm²	SD-46	11 C1A0D2	AS3.X	216 D1D1D1	1735	D749	R2	BR	4.00 mm²	SD-6	11 F2F2F2	ASB.2	11 E2E2E2	440																																																																																																																																																																																						
D2E	R2	RD	2.50 mm²	SD-18	11 C1C4C4	A14.8	13 D1D1D1	130	D166	R2	RD	0.50 mm²	AT1.X	11 C1A0D2	SD-46	11 C1A0D2	1000	Q427	R2	BR	4.00 mm²	SD-10	11 F2F2F2	AS3.X	13 Q2A2A2	A180.8	12 Q2C2C2	1375																																																																																																																																																																																				
D3	R2	RD	1.50 mm²	SD-25	11 D3D3D3	F81	16P1 C1C1C1	50	D169	R2	RD	1.50 mm²	F81	415 D1D6D5	R86	03 J1H5H5	270	Q428	R2	GNVE	0.50 mm²	D1	8 J4F16F16	A2	5 J4J13J13	410	D774	RD	RD	0.50 mm²	SD-54	11 E1E1E1E1	Q4.1	11 J1H16H16	220																																																																																																																																																																													
D4	R2	RD	1.50 mm²	SD-16	11 C1C3C3	F81	16P1 C1C1C1	120	D171	R2	RD	1.50 mm²	SD-16	11 C1C3C3	R86	02 J1G5G5	1025	D429	R2	BR	1.50 mm²	D1	8 J4F16F16	A2	6 J4J13J13	410	D775	RD	WH	1.50 mm²	SD-10	11 E1E1E1E1	F81	28P1 C1C7C7	1210																																																																																																																																																																													
D5	R2	RD	1.50 mm²	F81	16S1 D1D1D1	GEMEN	5 J1F21F2	405	D172	R2	RD	1.50 mm²	F81	425 D1D6D5	R86	03 J1G5G5	270	D434H	R2	WH	1.50 mm²	D1	5 J4F16F16	SD-26	11 E1E1E1E1	1200	D776	RD	WH	1.50 mm²	F81	26S1 D1D7D7	AD.2	2 J4E2E2	1200																																																																																																																																																																													
D6	R2	RD	1.50 mm²	F81	15S1 D1D1D1	GEMEN	5 J1F21F2	405	D173	R2	RD	1.50 mm²	AT1	10 J4J10A10	R86	05 J1G5G5	1550	D434L	R2	WH	0.50 mm²	SD-34	10 J4J10A10	D1	6 J4F16F16	1250	D778	RD	WH	0.50 mm²	AT1.X	24 J4D4D2	SD-11	11 E5E5E5	870																																																																																																																																																																													
D7	R2	RD	0.75 mm²	SD-10	11 D3D3D3	GEM-PL	1 J1D1D1D1	475	D174	R2	RD	1.50 mm²	F81	85 D1D6D5	SD-57	11 C1C4C1C1	1200	D438R	R2	WH	0.50 mm²	SD-19	11 D2A12A12	A18.A	10 J2F2F2	300	D785	RD	WH	0.50 mm²	R88	B1	11 G8G8G8	CTC4	13 J1B14B14	320																																																																																																																																																																												
D8	R2	RD	0.75 mm²	SD-23	11 E1E1E1E1	GEM-PL	5 J1H10H10	465	D175	R2	RD	1.50 mm²	F81	85 D1D6D5	R86	05 J1G5G5	270	D438L	R2	WH	0.50 mm²	SD-19	11 D2A12A12	A18.A	20 J2F2F2	300	D797H	RD	WH	0.50 mm²	SD-19	11 D2A12A12	CTC4	12 J1A14A14	855																																																																																																																																																																													
D10	R2	RD	0.75 mm²	GEM-PR	16 J1H9H9	SD-29	11 D1D1D1	800	D176	R2	RD	1.50 mm²	R86	83 J1G5G5	AS3.X	7 J2J2J2	995	D443	R2	WH	0.50 mm²	AT1	16 J4K9A10	CTC4	22 J1B14B14	1450	D97L	RD	BU	0.50 mm²	SD-15	11 D2A12A12	CTC4	11 J1A14A14	825																																																																																																																																																																													
D12	R2	RD	0.75 mm²	SD-29	11 C1C1C1	AS3.X	11 J1F1F1	315	D177	R2	RD	1.50 mm²	SD-19	11 D2A12A12	AS3.X	44 J4J10A10	1000	D445	R2	WH	0.50 mm²	AT1	11 J4J10A10	AS3.X	11 J1F1F1	315	D988	RD	WH	0.50 mm²	SD-29	11 D2A12A12	AS3.X	21 J2E2E2	1200																																																																																																																																																																													
D13	R2	RD	0.75 mm²	SD-29	11 C1C1C1	AS3.X	11 J1F1F1	315	D178	R2	RD	1.50 mm²	SD-46	11 F1F1F1	R86	AS3	0403	D447	R2	WH	0.50 mm²	Q4.2	11 F1F1F1	AS3.X	21 J2E2E2	AS3.X	1400	D800	RD	GN	0.50 mm²	SD-10	11 E1E1E1E1	A180.A	20 J1J1J1	375																																																																																																																																																																												
D14	R2	RD	0.75 mm²	GEM-PL	19 J1H12H12	SD-38	11 D1D1D1	305	D181	R2	RD	1.50 mm²	F81	435 D1D6D5	SD-46	11 F1F1F1	210	D464	R2	RD	0.50 mm²	D1	4 J4F16F16	A180.C	11 J2B2B2	775	D801	RD	WH	0.50 mm²	SD-11	11 E5E5E5	A180.A	26 J4D4D2	625																																																																																																																																																																													
D13	R2	RD	0.75 mm²	SD-38	11 D1D1D1	AS3.X	21 J1J1J1	445	D182	R2	RD	1.50 mm²	AT1	10 J4J10A10	R86	AS2	11E1E1E1	1550	D483	R2	GN	0.50 mm²	D1	11 J4H9A10	SDADIS	3 J4K9A10	1735	D802	RD	BR	0.50 mm²	SD-53	11 C1C4C4	X81	3 J4F3F3	720																																																																																																																																																																												
D15	R2	RD	0.75 mm²	SD-38	11 D1D1D1	AS3.X	21 J1J1J1	445	D184	R2	RD	1.50 mm²	SD-58	11 D1D1D1	AS3.X	4 J4J10A10	100	D484	R2	GN	0.50 mm²	D1	12 J4H9A10	SDADIS	3 J4K9A10	1735	D803	RD	RD	0.50 mm²	SD-38	11 D1D1D1	F81	28P1 C1C7C7	270																																																																																																																																																																													
D16	R2	RD	0.75 mm²	SD-38	11 D1D1D1	AS3.X	21 J1J1J1	445	D187	R2	RD	1.50 mm²	B1	15 J4J10A10	R86	02 J1G5G5	1550	D485	R2	WH	0.50 mm²	C1	13 J4H9A10	SDADIS	3 J4K9A10	1735	D804	RD	BR	0.50 mm²	SD-11	11 D1D1D1	SD-10	11 D1D1D1	1315																																																																																																																																																																													
D17	R2	RD	0.75 mm²	SD-17	11 E1E1E1E1	XL	3 J1J1J1	785	D188	R2	RD	0.75 mm²	F81	445 D1D6D5	R87	03 J1G5G5	270	D486	R2	WH	0.50 mm²	D1	14 J4H9A10	SDADIS	4 J4K9A10	1735	D805	RD	RD	0.50 mm²	F81	21S1 D1D7D7	C2	2 J4G13G13	1210																																																																																																																																																																													
D18	R2	RD	0.75 mm²	SD-17	11 E1E1E1E1	XL	3 J1J1J1	785	D189	R2	RD	0.75 mm²	B2	10 J4J10A10	R86	05 J1G5G5	1380	D492	R2	WH	0.50 mm²	AT1.X	6 J4H9A10	SDADIS	4 J4K9A10	1735	D806	RD	WH	0.50 mm²	SD-26	11 E1E1E1E1	AS3.X	6 J1C1C1C1	150																																																																																																																																																																													
D19	R2	RD	0.75 mm²	XL	4 J1J1J1	GEM-PR	5 J1F1F1	1010	D191	R2	RD	0.75 mm²	D1	16 J4G9A10	F81	54S1 D1D1D1	1400	D493	R2	WH	0.50 mm²	C1	5 J4G13G13	1380	D808L	RD	WH	0.50 mm²	AS3.X	14 J1D1D1D1	SD-34	11 D1D1D1D1	1260																																																																																																																																																																															
D20	R2	RD	0.75 mm²	XR	4 J4A4A4	GEM-PR	11 J1F1F1	1450	D192	R2	RD	1.00 mm²	F81	30P1 C1C1C1	SD-46	11 D1D1D1	1000	D494	R2	WH	0.50 mm²	C1	4 J4H9A10	SDADIS	2 J4K9A10	1735	D809	RD	WH	0.50 mm²	SD-74	11 F2F2F2	R84	5 J4G13G13	1260																																																																																																																																																																													
D21	R2	RD	0.75 mm²	XR	4 J4A4A4	GEM-PR	11 J1F1F1	1450	D194	R2	RD	1.00 mm²	F81	30P1 C1C1C1	SD-46	11 D1D1D1	1000	D495	RD	WH	0.50 mm²	C1	7 J4H9A10	SDADIS	2 J4K9A10	1735	D810	RD	WH	0.50 mm²	PEAC.3	11 E2E2E2	R84	3 J1F2F2	900																																																																																																																																																																													
D22	R2	RD	0.75 mm²	XR	4 J4A4A4	SD-5	11 D1D1D1	225	D195	R2	RD	0.75 mm²	F81	30S1 D1D6D5	AT1	6 J2H2H2	1535	D496	R2	WH	0.50 mm²	C1	2 J4G13G13	AS3.X	3 J4H9A10	1380	D812	RD	RD	0.50 mm²	SD-21	11 D2D2D2	F81	45P1 C1C5C5	120																																																																																																																																																																													
D23	R2	RD	0.75 mm²	GEM-PL	22 J1F21F2	XL	6 J1J1J1	1045	D197	R2	RD	1.50 mm²	F81	30S1 D1D6D5	B1	12 J4J10A10	1400	D497	R2	WH	0.50 mm²	C1	1 J4G13G13	AS3.X	5 J4H9A10	1380	D813	RD	RD	0.50 mm²	SD-17	11 D2D2D2	R84	2 J1J1J1	270																																																																																																																																																																													
D24	R2	RD	0.75 mm²	XL	7 J1J1J1	SD-40	11 F2F2F2	335	D200	R2	RD	1.50 mm²	SD-42	11 E1E1E1E1	F81	50P1 C1C1C1	210	D498	R2	GN	0.50 mm²	D1	7 J4G13G13	AS3.X	8 J4H9A10	1380	D814	RD	YE	0.50 mm²	CTC4	3 J4F9A10	SD-11	11 E5E5E5	540																																																																																																																																																																													
D25	R2	RD	0.75 mm²	GEM-PL	21 J1F21F2	XL	6 J1J1J1	1485	D201	R2	RD	1.50 mm²	SD-42	11 E1E1E1E1	F81	50P1 C1C1C1	210	D500	RD	RD	0.50 mm²	C1	10 J4H9A10	SDADIS	4 J4K9A10	1735	D815	RD	YE	0.50 mm²	D1	19 J4H9A10	D2	17 J4G13G13	1260																																																																																																																																																																													
D26	R2	RD	0.75 mm²	SD-9	11 D1D1D1	AS3.X	7 J1J1J1	225	D202	R2	RD	1.50 mm²	WH	1.50 mm²	B1	17 J4J10A10	F81	46S1 D1D1D1	1400	D509	RD	RD	0.75 mm²	SD-5	11 E1E1E1E1	F81	12P1 C1C1C1	40	D816	RD	BR	0.50 mm²	D2	16 J4G13G13	SD-22	11 E3E3E3	1340																																																																																																																																																																											
D29	R2	RD	0.75 mm²	B2	3 J1J1J1	GEM-PR	15 J1H9H9	1530	D203	R2	RD	1.50 mm²	B1	14 J4J10A10	F81	50S1 D1D1D1	1400	D510	RD	RD	0.50 mm²	SD-19	11 C1C4C4	F81	3P1 C1C1C1	90	D820	RD	VT	0.50 mm²	D2	16 J4G13G13	Q2.2	8 J2H2H2	1185																																																																																																																																																																													
D30	R2	RD	0.75 mm²	SD-19	11 D2D2D2	AS3.X	21 J1J1J1	1530	D204	RD	RD	0.50 mm²	F81	50S1 D1D1D1	AS3.X	11 J4H9A10	1880	D511	RD	RD	0.50 mm²	SD-24	11 E1E1E1E1	AS3.X	2P1 C1C1C1	160	D822	RD	BR	4.00 mm²	X84	11 E4E4E4	PEAC.4	11 D1D1D1D1	860																																																																																																																																																																													
D33	R2	RD	0.75 mm²	ANV	5 J4E2E2	AS3.X	11 J1F1F1	315	D205	RD	RD	1.50 mm²	ANV	5 J4E2E2	AS3.X	11 J1F1F1	315	D512	RD	WH	0.50 mm²	AT1	11 F1F1F1	AS3.X	21 J2E2E2	AS3.X	21	D823	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D824	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D825	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D826	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D827	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D828	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D829	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D830	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D831	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D832	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D833	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D834	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D835	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D836	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D837	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D838	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D839	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D840	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D841	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D842	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D843	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D844	RD	WH	0.50 mm²	SD-10	11 D1D1D1	AS3.X	21	D845	RD	WH	0.50 mm²	SD-10</

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Device Names	Qty.	Manufacturer	Part Number	Description	Alternative	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative								
A190.	4			0.2-0.5 MOS RECEPTCLE FEMALE 962885		A182.X	1	TYCO	137959-5	CONNECTOR 8PIN FEMALE 137959-5		A182.X	1	TYCO	137959-5	CONNECTOR 8PIN FEMALE 137959-5									
SIADIS	4			0.3-0.5 TERMINAL MALE 282404-1		A16.A	48	TYCO	1393366-1	0.5-0.75 TERMINAL FEMALE GET 1393366-1		A16.A	48	TYCO	1393366-1	0.5-0.75 TERMINAL FEMALE GET 1393366-1									
A15.A, Q10, A, Q15, A, Q3	16			0.5-1.0 JPT		A36.X	1	TYCO	1393382-2	CONNECTOR FEMALE 4PIN 1393382-2		A36.X	1	TYCO	1393382-2	CONNECTOR FEMALE 4PIN 1393382-2									
A183.X1.A190	2			Cover PBT-GF0		A16.A	1	TYCO	1438103-9	24 WAY ARM PLUG ASSEMBLY WITHOUT SHORTING BARS		A16.A	1	TYCO	1438103-9	24 WAY ARM PLUG ASSEMBLY WITHOUT SHORTING BARS									
A5.X	16			DELPHI SOCKET TERMINAL 12129484		A16.B	1	TYCO	1438435-1	40 WAY ARM PLUG ASSEMBLY WITHOUT SHORTING BARS		A16.B	1	TYCO	1438435-1	40 WAY ARM PLUG ASSEMBLY WITHOUT SHORTING BARS									
ANTENNA1	1			End Point		A29.AB1	2	TYCO	1452018-1	CONNECTOR FEMALE 6PIN BU-GEH		A29.AB1	2	TYCO	1452018-1	CONNECTOR FEMALE 6PIN BU-GEH									
SD-10,SD-11,SD-12,SD-13,SD-14,SD-15,SD-16,SD-17,SD-18,SD-19,SD-20,SD-21,SD-22,SD-23,SD-24,SD-25,SD-26,SD-29,SD-3,SD-32,SD-33,SD-34,SD-35,SD-36,SD-37,SD-38,SD-4,SD-40,SD-42,SD-43,SD-44,SD-45,SD-46,SD-47,SD-48,SD-5,SD-52,SD-53,SD-54,SD-55,SD-56	58			GENERAL SPLICE		H7.1.H7.2.Q32.2.Q4.1	6	TYCO	160684-2	0.5-1.0 TERMINAL FEMALE FASTON 2.8x0.5		H7.1.H7.2.Q32.2.Q4.1	6	TYCO	160684-2	0.5-1.0 TERMINAL FEMALE FASTON 2.8x0.5									
FB1,SD-19	160			Loosely Wound Tape		Q13.2	1	TYCO	160915-2	0.5-1.0 TERMINAL FEMALE FASTON 6.3 160915-2		Q13.2	1	TYCO	160915-2	0.5-1.0 TERMINAL FEMALE FASTON 6.3 160915-2									
A183.X1.A190	2			Sealing MVQ-30		G1.2.Q13.1	2	TYCO	160915-2	0.5-1.0 TERMINAL FEMALE FASTON 6.3 160915-2		G1.2.Q13.1	2	TYCO	160915-2	0.5-1.0 TERMINAL FEMALE FASTON 6.3 160915-2									
FB1	0			Spot Tape		G1.1	2	TYCO	160917-2	1.0-2.5 TERMINAL FEMALE FASTON 160917-2		G1.1	2	TYCO	160917-2	1.0-2.5 TERMINAL FEMALE FASTON 160917-2									
FB1	675			Wrapping Hose		GEM BR	1	TYCO	2-1419158-0	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY B		GEM BR	1	TYCO	2-1419158-0	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY B									
XLXR	21	DELPHI	ID400520	FEMALE TERMINAL 0.5-1.0		GEM BR	1	TYCO	2-1419158-1	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY A		GEM BR	1	TYCO	2-1419158-1	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY A									
XLXR	4	DELPHI	ID400530	FEMALE TERMINAL 1.5-2.5		GEM IPR	1	TYCO	2-1419158-2	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY E		GEM IPR	1	TYCO	2-1419158-2	GEM CONNECTOR 23 SOCKET HARNESS ASSEMBLY E									
XLXR	4	DELPHI	ID400792	FEMALE TERMINAL 1.5-2.5		SIADIS	1	TYCO	282106-1	CONNECTOR 4PIN MALE SUPERSREAL 282106-1		SIADIS	1	TYCO	282106-1	CONNECTOR 4PIN MALE SUPERSREAL 282106-1									
Q17	1	OSG-CANUSA	CPX355-48	SHRINK TUBE CPX355-48		A14.B	1	TYCO	8-968975-1	CONNECTOR 21PIN FEMALE 8-968975-1		A14.B	1	TYCO	8-968975-1	CONNECTOR 21PIN FEMALE 8-968975-1									
RB1, RB2, RB3, RB4	4	EPC	E-379	ISO RELAY WEDGE E-379		A21.X	1	TYCO	828922-1	CAVITY PLUG 1.5/2.5/4.0MM PIN 828922-1		A21.X	1	TYCO	828922-1	CAVITY PLUG 1.5/2.5/4.0MM PIN 828922-1									
RB5, RB6, RB7, RB8	4	EPC	E-380	MICRO-ISO RELAY WEDGE E-380		AUX EQUIPMENT	12V_POWER	G1.25	Q1.1, Q1.2, Q13.1	Q1.1, Q1.2, Q13.1	1	TYCO	926539-6	HOUSING FEMALE 1PIN FASTON 6.3		AUX EQUIPMENT	12V_POWER	G1.25	Q1.1, Q1.2, Q13.1	Q1.1, Q1.2, Q13.1	1	TYCO	926539-6	HOUSING FEMALE 1PIN FASTON 6.3	
RB1, RB2, RB3, RB4	4	EPC	E-386	SPACER ISO RELAY WEDGE E-386		A15.A	16	TYCO	927768-1	1.5-2.5 TERMINAL FEMALE 927768-1		A15.A	16	TYCO	927768-1	1.5-2.5 TERMINAL FEMALE 927768-1									
RB5, RB6, RB7, RB8	4	EPC	E-387	SPACER MICRO-ISO RELAY WEDGE E-387		Q17	7	TYCO	927771-1	0.5-1.1 TERMINAL FEMALE JPT 927771-1		Q17	7	TYCO	927771-1	0.5-1.1 TERMINAL FEMALE JPT 927771-1									
FB1	1	EPC	E-6037	FUSE PANEL ASSEMBLY		A11.X	1	TYCO	929051-1	SHIELD CONNECTOR 32PIN FEMALE MQS		A11.X	1	TYCO	929051-1	SHIELD CONNECTOR 32PIN FEMALE MQS									
A5.X	1	ESMA	12110250	HOUSING 18 PIN ID613256		A15.A	1	TYCO	963120-1	CONNECTOR 8PIN FEMALE GREY 963120-1		A15.A	1	TYCO	963120-1	CONNECTOR 8PIN FEMALE GREY 963120-1									
A5.X	1	ESMA	12110251	SECONDARY LOCK ID613257		A15.B	1	TYCO	963121-1	CONNECTOR 8PIN FEMALE BROWN 963121-1		A15.B	1	TYCO	963121-1	CONNECTOR 8PIN FEMALE BROWN 963121-1									
XL.XL1.XR	3	ESMA	15344010	CONNECTOR FEMALE 27 PIN ESMA 15344010		A183.X1	4	TYCO	965906-1	0.5-0.75 TERMINAL FEMALE MQS 965906-1		A183.X1	4	TYCO	965906-1	0.5-0.75 TERMINAL FEMALE MQS 965906-1									
XLXL1.XR	3	ESMA	FT10	RUBBER GROMMET FT10		A183.X1.A190.	2	TYCO	967640-1	CONNECTOR 4PIN FEMALE 967640-1		A183.X1.A190.	2	TYCO	967640-1	CONNECTOR 4PIN FEMALE 967640-1									
A22.2	1	FCI	14005601	CONNECTOR 2PIN FEMALE BLACK 14005601		A11.X	1	TYCO	968265-1	CONNECTOR 32PIN FEMALE MQS		A11.X	1	TYCO	968265-1	CONNECTOR 32PIN FEMALE MQS									
A22.1	1	FCI	14005611	CONNECTOR 2PIN FEMALE BROWN 14005611		X01	10	TYCO	1362343-1	HOUSING 3 PIN 4113015		X01	10	TYCO	1362343-1	HOUSING 3 PIN 4113015									
A1	1	FCI	211BC051004	FRAME FEM. COMPL. 211BC051004 BEIGE		SSA	10	TYCO	1362638-5	FEMALE TERMINAL 0.5-1.0		SSA	10	TYCO	1362638-5	FEMALE TERMINAL 0.5-1.0									
A2	1	FCI	211BC056004	FRAME FEM. COMPL. 211BC056004 BLUE		A29.AB1	2	TYCO	1452020-1	COVER BU-GEH		A29.AB1	2	TYCO	1452020-1	COVER BU-GEH									
A1.1	1	FCI	211BL051004	FRAME MALE COMPL. 211BL051004 BEIGE		A29.AB1	2	TYCO	1452021-1	FRAME BU-GEH		A29.AB1	2	TYCO	1452021-1	FRAME BU-GEH									
A1.B1.C1.C2.D1.D2	89	FCI	211CC251120	0.35-0.75 TERMINAL FEMALE 211CC251120		Q1.1, Q1.2	2	TYCO	160916-2	FON 6.3 1.1-2.5		Q1.1, Q1.2	2	TYCO	160916-2	FON 6.3 1.1-2.5									
A2	1	FCI	211PC1235004	CONNECTOR 12PIN FEMALE 211PC1235004 GREEN		X15	2	TYCO	173631-1	AWG16-20 Female 070 MLC		X15	2	TYCO	173631-1	AWG16-20 Female 070 MLC									
B2	1	FCI	211PC1235004	CONNECTOR 12PIN FEMALE 211PC1235004 BLUE		X14	1	TYCO	174921-1	MLC 070 3 Pin Female		X14	1	TYCO	174921-1	MLC 070 3 Pin Female									
E2	1	FCI	211PC1235004	CONNECTOR 12PIN FEMALE 211PC1235004 WHITE		A180.A	30	TYCO	175285-1	0.40H AWG22-AWG18 Terminal Female		A180.A	30	TYCO	175285-1	0.40H AWG22-AWG18 Terminal Female									
D1.D2	2	FCI	211PC1825004	CONNECTOR 18PIN FEMALE 211PC1825004 RED		A180.A	20	TYCO	175286-1	0.70H AWG22-AWG18 Terminal Female		A180.A	20	TYCO	175286-1	0.70H AWG22-AWG18 Terminal Female									
C1.C2	2	FCI	211PC1825004	CONNECTOR 18PIN FEMALE 211PC1825004 YELLOW		X04	2	TYCO	180351-5	3.0-6.0 FASTON FEMALE		X04	2	TYCO	180351-5	3.0-6.0 FASTON FEMALE									
A1	1	FCI	211PC1825004	CONNECTOR 18PIN FEMALE 211PC1825004 GREEN		A180.C	1	TYCO	917978-1	CONNECTOR TYCO 12 PIN FEMALE		A180.C	1	TYCO	917978-1	CONNECTOR TYCO 12 PIN FEMALE									
B1	1	FCI	211PC1825004	CONNECTOR 18PIN FEMALE 211PC1825004 BLUE		A180.B	1	TYCO	917981-1	CONNECTOR TYCO 16 PIN FEMALE		A180.B	1	TYCO	917981-1	CONNECTOR TYCO 16 PIN FEMALE									
Q3	1	FCI	60210401	CONNECTOR 7PIN FEMALE 60210401		A180.A	1	TYCO	917992-1	CONNECTOR TYCO 28 PIN FEMALE		A180.A	1	TYCO	917992-1	CONNECTOR TYCO 28 PIN FEMALE									
Q10.A.Q15.A	2	FCI	60211501	CONNECTOR 7PIN FEMALE 60211501		H7.1.H7.2.Q32.2.Q4.1	6	TYCO	925387-1	Faston 1 Pin Insulation Sleeve 2.8 Clear		H7.1.H7.2.Q32.2.Q4.1	6	TYCO	925387-1	Faston 1 Pin Insulation Sleeve 2.8 Clear									
Q20.	1	FCI	60231111	CONNECTOR 7PIN FEMALE 60231111		X01	3	TYCO	962943-2	MICROTIMER 0.5-1.0		X01	3	TYCO	962943-2	MICROTIMER 0.5-1.0									
A1.B1.C1	7	FCI	9148072	1.0-2.0 FEMALE TERMINAL 1.5 SICMA 2		A11.X	47	TYCO	963715-1	SOCKET TERMINAL MQS 0.50-0.75		A11.X	47	TYCO	963715-1	SOCKET TERMINAL MQS 0.50-0.75									
A2.B2	14	FCI	9148079	0.3-1.0 SICMA 2 FEMALE TERMINAL		Q10Y	3	TYCO	968073-2	CLOCK FEMALE 2.5-4.0		Q10Y	3	TYCO	968073-2	CLOCK FEMALE 2.5-4.0									
A2.B2.E2	8	FCI	9148080	1.0-3.0 FEMALE TERMINAL 2.8 SICMA 2		A21.X	7	YAZAKI	7116-4102-02	0.35-0.5 TERMINAL FEMALE 7116-4102-02		A21.X	7	YAZAKI	7116-4102-02	0.35-0.5 TERMINAL FEMALE 7116-4102-02									
E2	3	FCI	9148081	3.0-5.0 FEMALE TERMINAL 2.8 SICMA 2		Q2	1	YAZAKI	7158-3030-50	SWS YAZAKI ID1.19-1.70 7158-3030-50		Q2	1	YAZAKI	7158-3030-50	SWS YAZAKI ID1.19-1.70 7158-3030-50									
A1.1	1	FCI	9148287	CONNECTOR 18PIN MALE 211PL1825004 GREEN		A21.X	1	YAZAKI	7283-5685-10	HOUSING 8 PIN		A21.X	1	YAZAKI	7283-5685-10	HOUSING 8 PIN									
Q20.	1	G&HARTMAN	949678	0.5-1.0 TERMINAL FEMALE STD TIMER 949678		Q3	1	YAZAKI	7283-6455-40	CONNECTOR 10PIN FEMALE 7283-6455-40		Q3	1	YAZAKI	7283-6455-40	CONNECTOR 10PIN FEMALE 7283-6455-40									
Q20.	2	G&HARTMAN	949681	4.1-6.0 TERMINAL FEMALE STD TIMER 949681		A29.AB1, Q2, Q20, Q7	19	YAZAKI	916850-2	0.5 TERMINAL FEMALE 916850-2		A29.AB1, Q2, Q20, Q7	19	YAZAKI	916850-2	0.5 TERMINAL FEMALE 916850-2									
PE3C.1,PE3C.2,PE4C.5,PE4C.6	4	G&HARTMAN	970789	1.5-2.5 TERMINAL RING M6 970789		Q2, Q2B, Q7	9	YAZAKI	916850-4	0.75-1.0 TERMINAL FEMALE 916850-4		Q2, Q2B, Q7	9	YAZAKI	916850-4	0.75-1.0 TERMINAL FEMALE 916850-4									
PE1&2B.1,PE1&2B.2,PE1&2C.1,PE1&2C.2,PE4B.1,PE4B.2,PE4C.1,PE4C.2,PE4C.3,PE4C.4	10	G&HARTMAN	970794	RING TERMINAL M6 2.6-6.0		A3, GEM.BL, GEM.EN	13	YAZAKI	916851-2	FEMALE TERMINAL 1.5-2.5		A3, GEM.BL, GEM.EN	13	YAZAKI	916851-2	FEMALE TERMINAL 1.5-2.5									
C144, C145, C146, C147, C148, C151, C153, C170	8	HELLERMANN	CBT30MR	CLIP EDGE WCABLE TIE CBT30MR																					
A29, A31	2	HELLERMANN	T18R SV-1000	CABLE TIE T18R SV-1000																					
C149, C150, C152, C153, C161, C162, C164	7	HELLERMANN	T50R-FT7 BLACK	CLIPS T50R-FT7 BLACK																					
C159, C160	2	HELLERMANN TYTON	981163	CLIPS T30MRT2.5																					
C165, C167, C169	3	HELLERMANN TYTON	T50RBS55.N66-BK	WELD STUD FIXING TIE BLACK																					
Q23	1	JETPRESS	434.00.22.0	CONNECTOR 8 PIN FEMALE 434.00.22.0																					
Q22	1	JETPRESS	434.00.22.5	CONNECTOR 8 PIN FEMALE 434.00.22.5																					
Q18	1	JETPRESS	434.00.22.6	CONNECTOR 8 PIN FEMALE 434.00.22.6																					
G1.1	1	KB COMPONENTS	5516410	CONNECTOR 2PIN FEMALE FASTON 5516410																					
X84	1	KB COMPONENTS	5518520	FASTON HOUSING BLACK 2 PIN FEMALE																					
RLY1, RLY2, RLY3, RLY4, RLY5, RLY6	6	KG KNUSSON HANDELS AB	HELLA 4RD003520137	12V Relay MINI																					
RLY15, RLY16, RLY17, RLY18, RLY19, RLY20, RLY22, RLY24, RLY26																									



LABEL LAYOUT
 Harness Supplier:
 Think Partno:
 Date:
 Batch Sequence:
 Test:
 Barcode

[INTERFACE TO DASH HARNESS]

[DASH CONNECTION]

[TRACTION MOTOR SENS]

[WIPER MOTOR]

[VACUUM PUMP]

[RADIATOR FAN 1]

[RADIATOR FAN 2]

[RESISTOR]

[INERTIA SWITCH]

[BRAKE FLUID SENSOR]

[SIDE REP. LF]

[HEAD LAMP LH]

[HEAD LAMP LEVELING LH]

[HORN I]

[WASHER PUMP]

[COOLANT WATER PUMP #1]

[COOLANT WATER PUMP #2]

[ABS CONTROL UNIT]

[IPAS]

[AMBIENT AIR TEMP SENSOR]

[CABIN WATER PUMP]

[FLUID HEATER]

SC	Significant Characteristics
1	TORQUE TO 8Nm +/-1Nm WASHER SHOULD FLATTEN COMPLETELY

Revision	Task Number	Description	Date	Change Req	Prepared	Approved
1	N/A	New Model Year	04.11.2010	ESP	MSV	PBA

Part Name	Part Number	Quantity	Unit
PE1A2.1	1	1	PCB
PE4.1	1	1	PCB
PE4.3	1	1	PCB
PE1A2.2	1	1	PCB
PE1A2.3	1	1	PCB

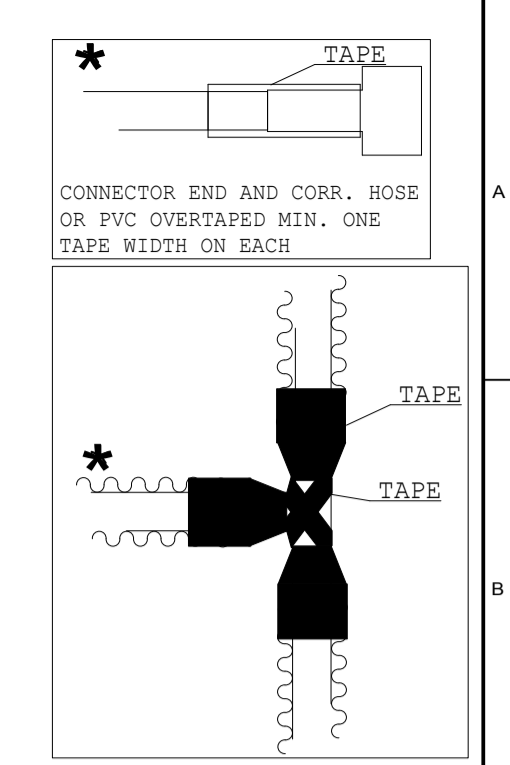
Part Name	Part Number	Quantity	Unit
A306	541.4030.B	1	DRIFT

ALL GROUND TERMINALS SHALL BE SOLDERED AFTER CRIMP AND COVERED WITH SHRINK SLEEVE

ALL CONNECTOR VIEWS ARE SEEN FROM THE WIRE SIDE IF NOTHING ELSE IS STATED

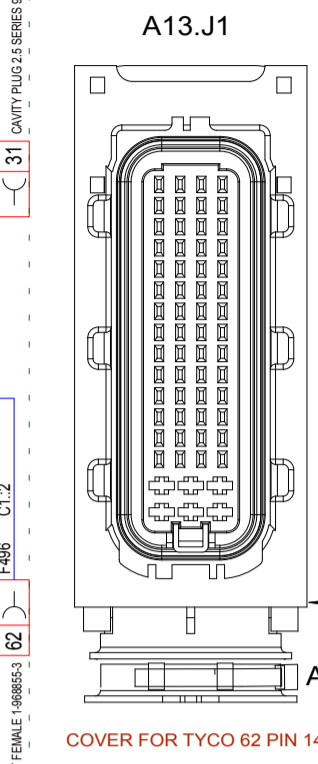
CABLES F430-F431, F432-F433, F483-F484, F424-F425, F426-F427, F428-F429, F731-F732, F487-F488, F653H + F653L TWISTED 40x2 TURNS/M
 CABLES F434L-F434H, F436H-F436L, F570H-F570L, F839H-F839L TWISTED 40x2 TURNS/M
 CABLES F326-F327, F751-F752 TWISTED 30x2 TURNS/M

WIRES THAT ENTER THE Y OR T-PIECE WITHOUT CORRUGATED HOSE SHALL BE PROTECTED WITH TAPE
 ALL DIMENSIONS FROM Y AND T-PIECES SHALL BE MEASURED FROM CENTER-CROSSING POINT
 IF NOTHING ELSE IS GIVEN THE GENERAL TOLERANCE FOR CABLE TIES IS ±5mm



CONNECTOR END AND CORR. HOSE OR PVC OVERLAPPED MIN. ONE TAPE WIDTH ON EACH

CORRUGATED HOSE END OVERTAPPED MINIMUM ONE TAPE-WIDTH AND THEREAFTER CROSS-TAPED OVER THE T-BRANCH



COVER FOR TYCO 62 PN 1418882-1

Head-Lamp Levelling Connector to be Tied-back (with paper tape) to the main branch

DO NOT CUT CABLE TIES. POSITION OF LOCKING WILL BE DECIDED LATER

CABLE TIE SHALL BE PLACED AROUND ALL BRANCHES

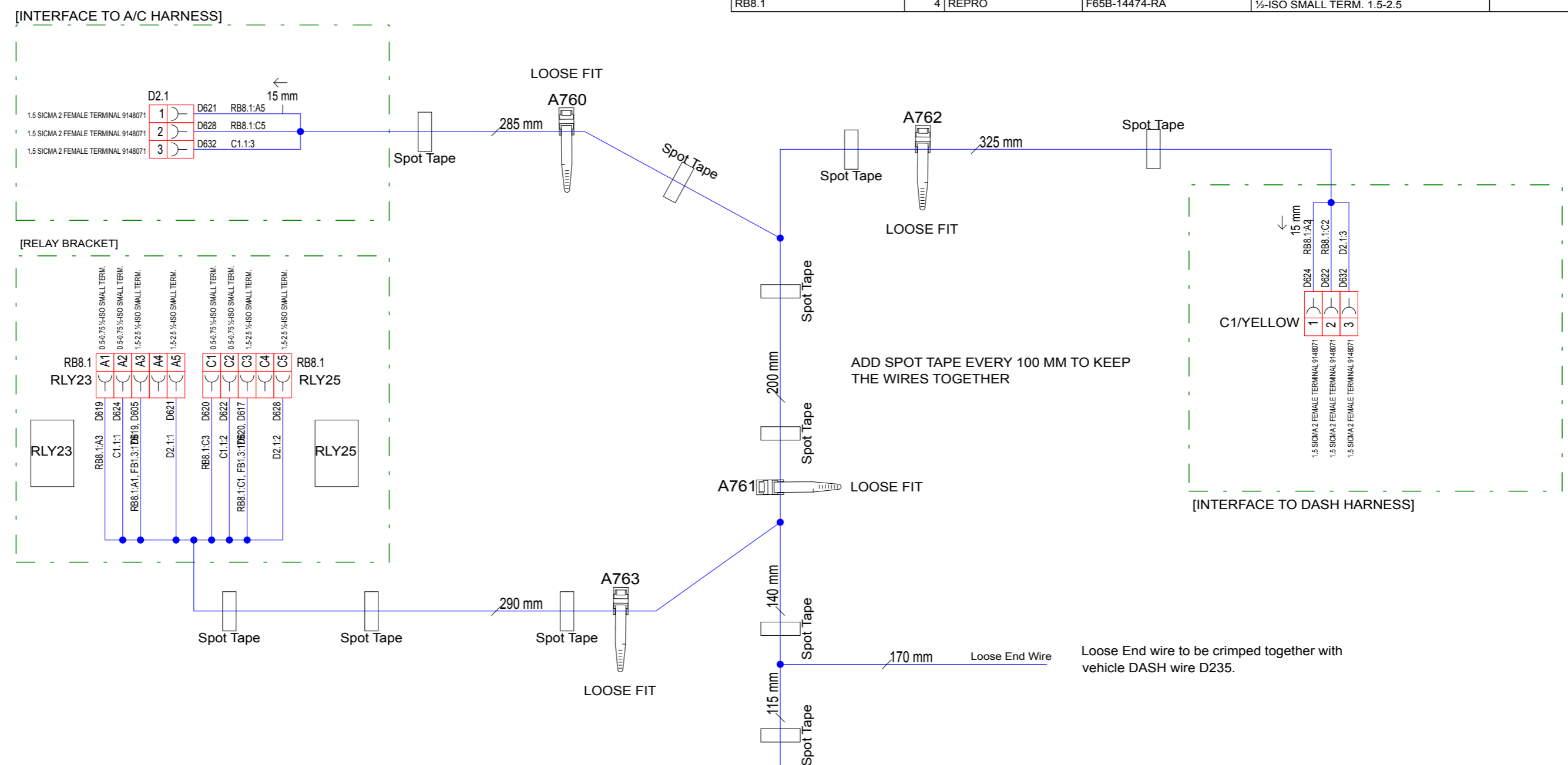
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)	Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative	
F11	SN9	RD	25.00 mm²	A48.1	1 J1011H11	A1A	1 J1012D4	2550	F829	RZ	YE	0.50 mm²	A23.X2	10 J1H41H4	SF-16	1 J1E313	1905	A13.J1	1	TYCO	0.5-1.0 AMP MCP 2.8 CONTACT FEMALE			A13.J1	1	TYCO	1-1418883-1	CONNECTOR TYCO E2 PIN MALE		
F128	RZ	BKWH	1.50 mm²	M2	1 J1H11H1	A1	6 J1B101B0	3200	F830	RZ	YE	0.50 mm²	A13.J1	57 J1C141C4	SF-16	1 J1E313	1700	M10_S2_S4	5	TYCO	1-1437713-2			M10_S2_S4	5	TYCO	1-1437713-2	SW5 AMP 1-1437713-2		
F44	RZ	GYRD	0.50 mm²	D1	7 J1B91B6	A13.J1	37 J1C121C2	1608	F851	RZ	RDVE	0.50 mm²	A1	3 J1B101B0	A23.X2	3 J1H41H4	2700	A18_A9	4	YAZAKI	7116-4103-02			A18_A9	4	YAZAKI	7116-4103-02	TERMINAL YAZAKI		
F56	RZ	BU	0.75 mm²	B1	1 J1B91B6	SF-9	4 J1C13C3	545	F852	RZ	RDVE	0.50 mm²	D1	12 J1B91B6	A23.X2	6 J1H41H4	2833	A28	2	YAZAKI	7116-4142-02			A28	2	YAZAKI	7116-4142-02	0.35-0.6 TERMINAL FEMALE		
F57	RZ	BU	0.75 mm²	SF-9	1 J1C13C3	P2	4 J1E1E1	680	F861	RZ	YEGN	1.00 mm²	SF-14	1 J1H81H8	A8	2 J1H11H11	470	GENERAL SPLICE	19					A18_A9	4	YAZAKI	7116-3031-90	SWS YAZAKI 7116-3031-90		
F58	RZ	GN	0.50 mm²	B1	1 J1C13C3	H3	1 J1C11C1	230	F862	RZ	YEGN	1.00 mm²	SF-14	1 J1H81H8	A18	2 J1H11H11	240	SF-10, SF-11, SF-14, SF-15	19					A28	2	YAZAKI	7116-3003	SWS YAZAKI 7116-3003		
F59	RZ	GN	0.75 mm²	SF-1	18 J1B101B0	SF-5	1 J1D121D2	2545	F863	RZ	BK	1.00 mm²	SF-23	1 J1H81H8	A18	2 J1H11H11	500	SF-16, SF-17, SF-18, SF-19, SF-2	19					A28	2	YAZAKI	7116-3003	SWS YAZAKI 7116-3003		
F60	RZ	GN	0.50 mm²	SF-5	1 J1D121D2	P9	4 J1H151H5	410	F864	RZ	BK	1.00 mm²	SF-23	1 J1H81H8	A18	2 J1H11H11	250	SF-5, SF-6, SF-7, SF-9	1					A28	2	YAZAKI	7283-5596-10	CONNECTOR 2PIN FEMALE 7283-5596		
F61	RZ	GN	0.50 mm²	SF-5	1 J1D121D2	H6	1 J1F151F5	190	F865	RZ	BK	0.50 mm²	A191	1 J1F151F5	A10	1 J1F151F5	410	Rubber Cover 3 Pole Black 975287	10					A28	2	YAZAKI	7283-5596-10	CONNECTOR 2PIN FEMALE 7283-5596		
F76	RZ	BK	0.50 mm²	SF-4	1 J1F131F3	H6	2 J1F151F5	190	F866	RZ	BK	0.50 mm²	A192	1 J1D1D2	SF-11	1 J1E1E4	1540	SWS 0.5-1.0mm 1080044522	8030											
F78	RZ	BK	0.50 mm²	SF-11	1 J1C11C1	H3	2 J1C11C1	590	F867	RZ	GY	0.50 mm²	SF-25	1 J1D1D7	A191	2 J1C101C0	1690	Wiring Hose	1											
F101	RZ	RD	1.50 mm²	E2	8 J1A41A4	M3	2 J1E1E1	1535	F868	RZ	GY	0.50 mm²	SF-25	1 J1D1D7	B1	16 J1B101B0	1265	GET14-20	1											
F149	RZ	RDGN	0.50 mm²	A13.J1	47 J1C131C3	C1	8 J1B81B8	1631	F869	RZ	GY	0.50 mm²	SF-25	1 J1D1D7	A192	2 J1D1D2	1280	XR3T-14A464-AA	1											
F152	RZ	RDVE	0.75 mm²	A10.2.X	32 J1K41K4	C1	1 J1B81B8	2063	F870	RZ	RDVE	1.50 mm²	A191	3 J1C101C0	SF-26	1 J1C13C3	2460	1 928 301 085	1											
F155	RZ	BU	0.50 mm²	A13.J1	21 J1B141B4	A1	14 J1B11B11	1675	F871	RZ	RDVE	1.50 mm²	SF-26	1 J1C13C3	B1	2 J1B91B9	495	CONNECTOR FEMALE 2PIN 1.5 SEALED	1											
F156	RZ	BN	2.50 mm²	A28	2 J1E101E0	E2	4 J1B41B4	1895	F872	RZ	RDVE	1.50 mm²	SF-26	1 J1C13C3	A192	3 J1D1D2	730	SWS GREY 0.5-0.75 BTL 1.5 1 928 301 083	1											
F157	RZ	BU	0.50 mm²	A1	12 J1B11B11	A13.J1	22 J1B41B4	1675	F873	RZ	WH	0.50 mm²	A1	15 J1B11B11	A13.J1	43 J1C131C3	1675	1 928 301 086	2											
F158	RZ	WHRD	0.75 mm²	SF-6	1 J1H31H3	A1	11 J1B11B11	3030																						
F173	RZ	YEGN	1.00 mm²	SF-14	1 J1H81H8	A1	10 J1B11B11	1840																						
F182	RZ	BN	0.50 mm²	A1	9 J1B11B11	A10	1 J1D1D9	1830																						
F184	RZ	RD	1.50 mm²	M12	1 J1H11H1	A1	4 J1B101B0	3260																						
F187	RZ	YE	0.50 mm²	B1	15 J1B101B0	A13.J1	23 J1B41B4	1655																						
F191	RZ	RDVE	0.50 mm²	D1	16 J1B71B7	A17.B	3 J1J1J3	2533																						
F196	RZ	WHRD	0.50 mm²	A13.J1	46 J1C131C3	SF-19	1 J1E31E3	840																						
F197	RZ	WHRD	0.50 mm²	SF-19	1 J1E31E3	B1	12 J1B91B9	815																						
F199	RZ	WHRD	0.50 mm²	SF-19	1 J1E31E3	A10.2.X	30 J1K41K4	1295																						
F202	RZ	WHGN	1.50 mm²	B1	17 J1B101B0	P9	1 J1H151H5	2655																						
F203	RZ	BUON	1.50 mm²	B1	14 J1B101B0	P2	1 J1E1E1	1225																						
F207	RZ	BUWH	1.50 mm²	B1	7 J1B91B9	P9	3 J1H151H5	2655																						
F208	RZ	WH	1.50 mm²	A1	4 J1B91B9	P2	3 J1E1E1	1225																						
F222	RZ	BU	0.75 mm²	P2	6 J1E1E1	B1	11 J1B91B9	1225																						
F221	RZ	GN	0.75 mm²	B1	10 J1B91B9	P9	6 J1H151H5	2655																						
F240	RZ	RD	0.75 mm²	B1	3 J1B91B9	SF-20	1 J1G41G4	1135																						
F241	RZ	RD	0.75 mm²	SF-20	1 J1G41G4	M7	1 J1K1E1	310																						
F260	RZ	BK	1.50 mm²	SF-4	1 J1F131F3	M10	4 J1D1D9	1355																						
F262	RZ	RDVE	1.50 mm²	M10	2 J1D1D9	A1	8 J1B11B11	1830																						
F263	RZ	RDGN	1.50 mm²	A1	7 J1B11B11	M10	3 J1D1D9	1830																						
F275	RZ	BK	1.50 mm²	SF-4	1 J1F131F3	SF-4	1 J1F131F3	540																						
F276	RZ	BK	1.50 mm²	SF-4	1 J1F131F3	SF-11	1 J1E41E4	1940																						
F279	RZ	BK	0.75 mm²	P9	5 J1H151H5	SF-4	1 J1F131F3	410																						
F281	RZ	BK	0.75 mm²	P2	5	X125	4																							
F328	RZ	YE	0.50 mm²	A13.J1	63 J1C141C4	C1	18 J1B81B8	1631																						
F329	RZ	BU	0.50 mm²	A13.J1	49 J1C131C3	C1	17 J1B81B8	1631																						
F330	RZ	GN	0.50 mm²	A13.J1	45 J1C131C3	C1	16 J1B81B8	1631																						
F331	RZ	BN	0.50 mm²	A13.J1	41 J1C131C3	C1	15 J1B81B8	1631																						
F334	RZ	BK	1.00 mm²	SF-11	1 J1E41E4	SF-23	1 J1H81H8	945																						
F363	RZ	WH	0.50 mm²	SF-11	2 J1E1E1	B1	5 J1B91B9	315																						
F366	RZ	BK	0.50 mm²	SF-15	1 J1F131F3	SF-4	1 J1E1E1	540																						
F408	RZ	RDVE	0.75 mm²	M5	2 J1D71D7	B1	9 J1B91B9	1775																						
F409	RZ	BK	0.75 mm²	SF-4	1 J1F131F3	M5	1 J1D71D7	2110																						
F410	RZ	GN	0.50 mm²	A17.B	4 J1J1J3	D1	15 J1B71B7	2533																						
F413	RZ	YE	0.50 mm²	A17.B	5 J1J1J3	D1	14 J1B71B7	2																						

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)		
Loose End Wire	R2	RD	2.50 mm ²	FB1.3	17P	/1.F41F4	Loose End Wire	/1.E51E5	345	
D605	R2	RD	0.75 mm ²	RB8.1	A3	/1.C21C2	FB1.3	17S	/1.F41F4	605
D617	R2	RD	0.75 mm ²	RB8.1	C3	/1.C21C2	FB1.3	17S	/1.F41F4	605
D619	R2	RD	0.50 mm ²	RB8.1	A3	/1.C21C2	RB8.1	A1	/1.C11C1	100
D620	R2	RD	0.50 mm ²	RB8.1	C3	/1.C21C2	RB8.1	C1	/1.C21C2	100
D621	R2	RD	0.75 mm ²	RB8.1	A5	/1.C21C2	D2.1	1	/1.B21B2	790
D622	R2	WH	0.50 mm ²	C1.1	2	/1.B61B6	RB8.1	C2	/1.C21C2	845
D624	R2	BU	0.50 mm ²	C1.1	1	/1.B61B6	RB8.1	A2	/1.C11C1	845
D628	R2	RD	0.75 mm ²	RB8.1	C5	/1.C21C2	D2.1	2	/1.B21B2	790
D632	R2	WH	0.50 mm ²	C1.1	3	/1.B61B6	D2.1	3	/1.B21B2	655

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
Fs108	165			Spot Tape	
A760,A761,A762,A763	4	CHIP MARKETING AB/JETPRESS LIMITED	CAT054-BLK	Strips	
RB8.1	1	EPC	E-380	MICRO-ISO RELAY WEDGE E-380	
RB8.1	1	EPC	E-387	SPACER MICRO-ISO RELAY WEDGE E-387	
C1.1,D2.1	6	FCI	211CC2S1120	0.35-0.75 TERMINAL FEMALE 211CC2S1120	A
RLY23,RLY25	2	KG KNUTSSON HANDELS AB	HELLA 4RD007814017	12V Relay MICRO w Resistor	TYCO V23074-A1001-A403
FB1.3	2	LEAR	F2DB-14474-CA	MINIFUSE TERMINAL 1.5-2.5	
Fs108	1	LITTELFUSE	297010	MINIFUSE 10AMP .297010	
RB8.1	4	REPRO	F65B-14474-MA	1/2-ISO SMALL TERM. 0.5-0.75	
RB8.1	4	REPRO	F65B-14474-RA	1/2-ISO SMALL TERM. 1.5-2.5	



Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0.5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

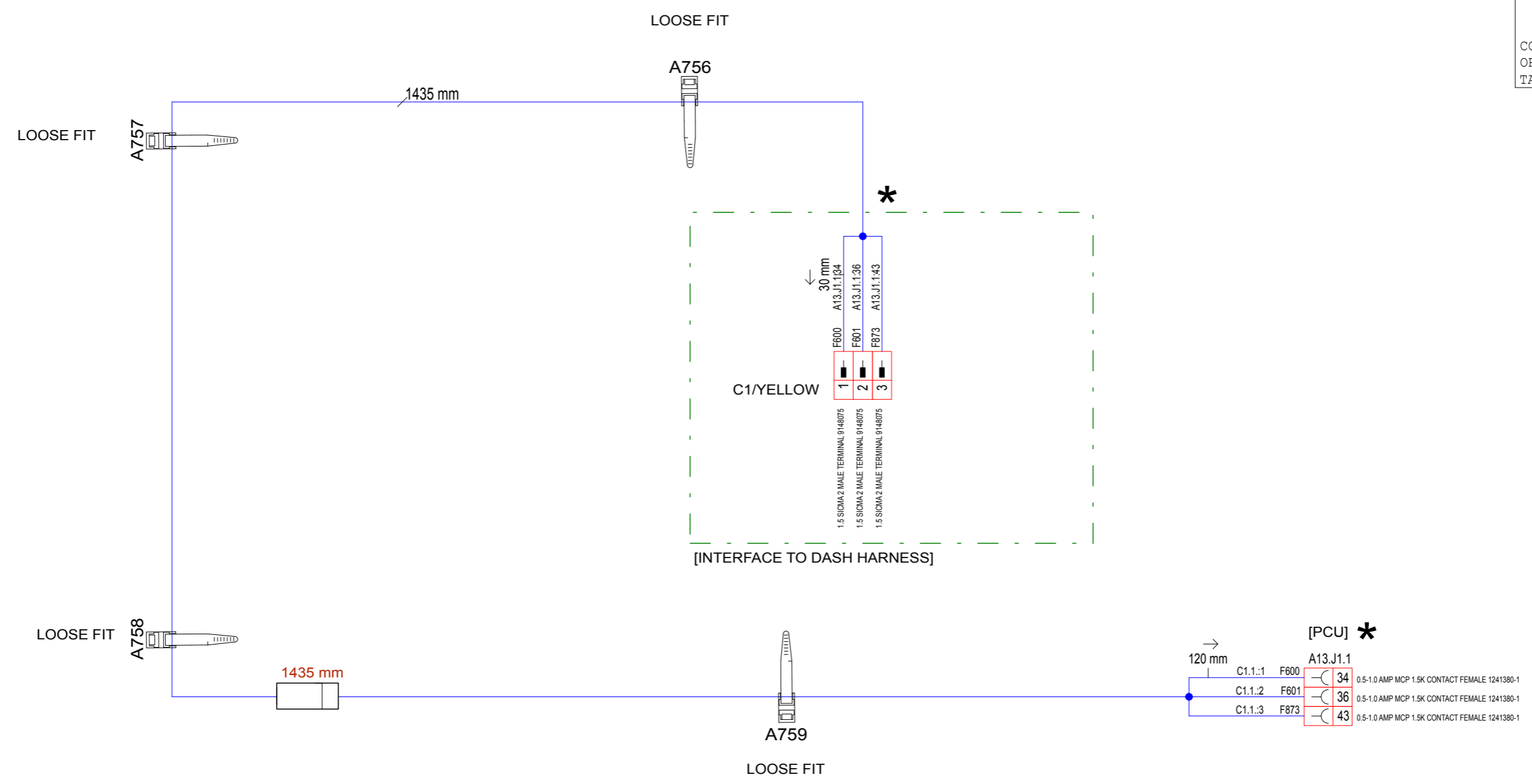
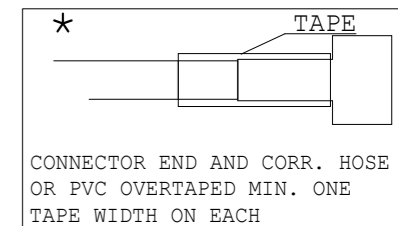
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Rev.	Description	Change Req.	Date	Prepared	Approved
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MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by A3		Sheet Size		Created 01.10.2010	Change Date 20101004
A306		Description		Page 1 of 1	Status
BATTERY CHILLER DASH		541.BATT CHILL DASH		DRAFT	

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)	
F600	R2	BU	0.50 mm ²	A13.J1.1	34	/1.E51E5	C1.1.	1 /1.C41C4	1585
F601	R2	WH	0.50 mm ²	A13.J1.1	36	/1.E51E5	C1.1.	2 /1.C41C4	1585
F873	R2	WH	0.50 mm ²	A13.J1.1	43	/1.E51E5	C1.1.	3 /1.C41C4	1585

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A13.J1.1	1			COVER FOR TYCO 62 PIN 1418882-1	
	1435			Wrapping Hose	
A756,A757,A758,A759	4	CHIP MARKETING AB/JETPRESS LIMITED	CAT054-BLK	Strips	
C1.1.	3	FCI	9148075	MALE TERMINAL 1.5 SICMA 2	
A13.J1.1	3	TYCO	1-1241380-1	0.5-1.0 AMP MCP 1.5K CONTACT FEMALE 1241380-1	
A13.J1.1	1	Tyco	1-1418883-1	CONNECTOR TYCO 62 PIN MALE	



Length tolerances

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

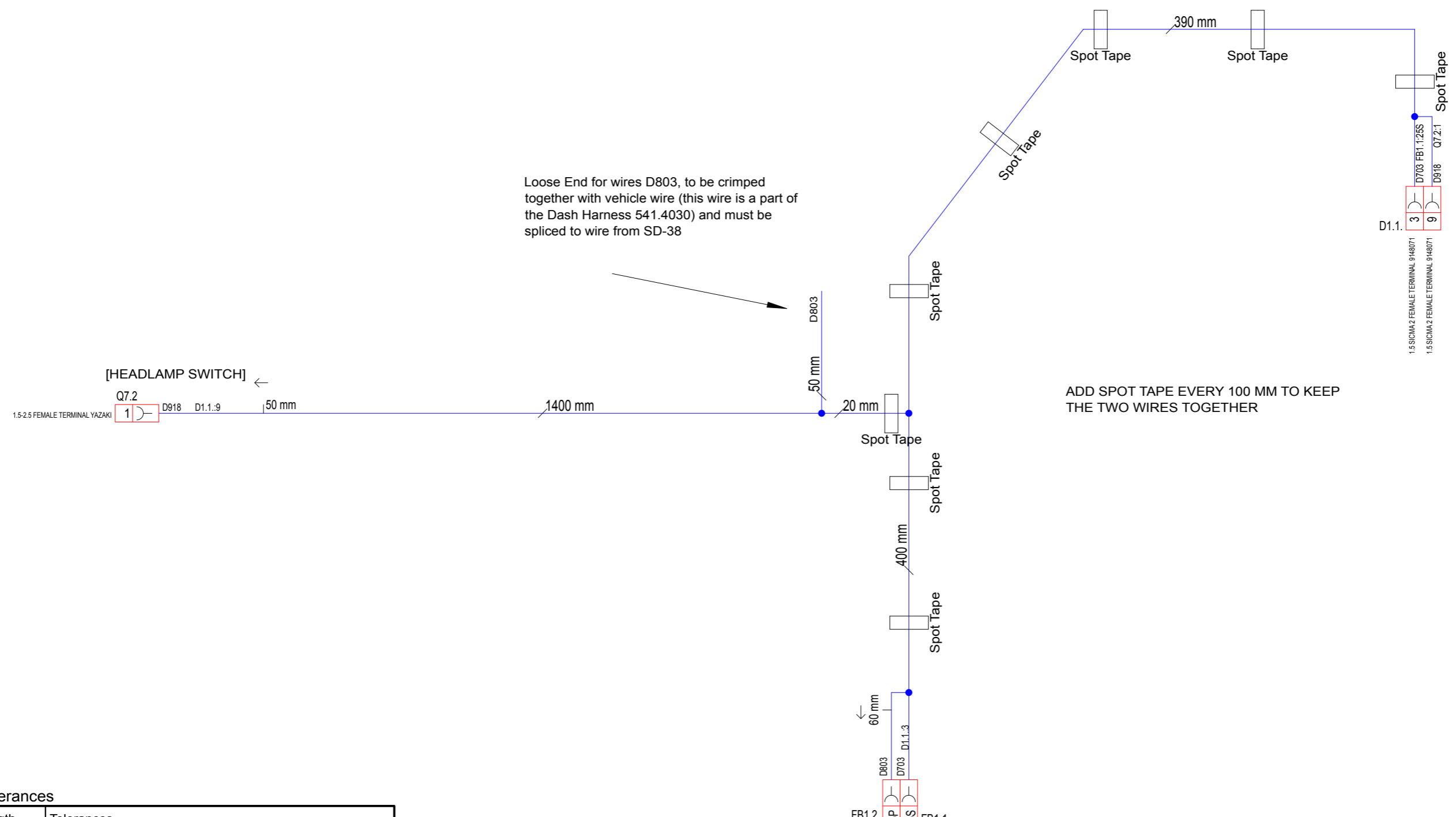
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Rev.	Description	Change Req.	Date	Prepared	Approved
HARNESS		Document type			
MSV		Prepared by			
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Approved by	A3	Sheet Size	Created	Change Date	Page 1 of 1
A306 BATTERY CHILLER FRT		Description	Drawing no		Status
		541.BATT CHILL FRT		DRAFT	

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
D803	R2	RD	2.50 mm ²	FB1.2	25P /1.E41E4	LOOSE END	1 /1.C41C4	530
D703	R2	RD/YE	1.50 mm ²	FB1.1	25S /1.E41E4	D1.1.	3 /1.C61C6	850
D918	R2	GY	1.50 mm ²	Q7.2	1 /1.D11D1	D1.1.	9 /1.C61C6	1860

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
Fs25	0			Spot Tape	
D1.1.	2	FCI	211CC2S1120	0.35-0.75 TERMINAL FEMALE 211CC2S1120	
FB1.1,FB1.2	2	LEAR	F2DB-14474-CA	MINIFUSE TERMINAL 1.5-2.5	
Fs25	1	LITTELFUSE	297015	MINIFUSE 15AMP .297015	
Q7.2	1	YAZAKI	9168512	FEMALE TERMINAL 1.5-2.5	



Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0.5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

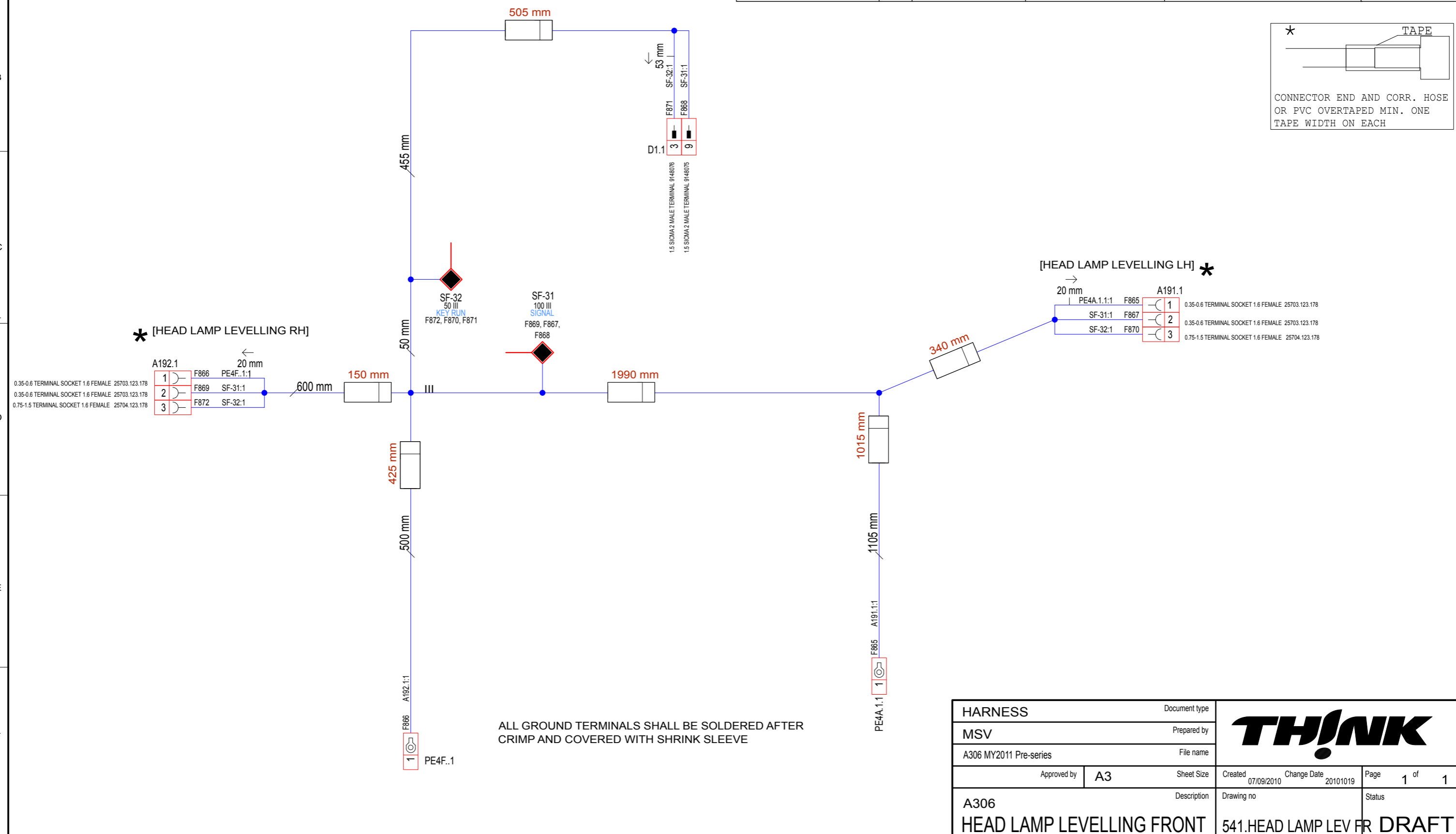
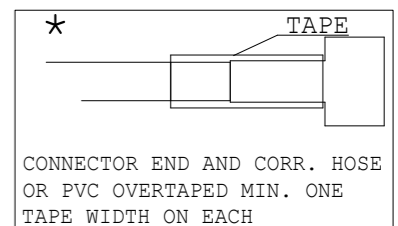
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A306		Description	Drawing no		
HEAD LAMP LEVELLING DASH		541.HEAD LAMP LEV DH		DRAFT	

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
F865	R2	BK	0.50 mm ²	A191.1	1 /1.C51C5	PE4A.1.1	1 /1.E41E4	1465
F866	R2	BK	0.50 mm ²	A192.1	1 /1.D11D1	PE4F..1	1 /1.F21F2	1120
F867	R2	GY	0.50 mm ²	SF-31	1 /1.D31D3	A191.1	2 /1.C51C5	2250
F868	R2	GY	0.50 mm ²	D1.1	9 /1.B31B3	SF-31	1 /1.D31D3	658
F869	R2	GY	0.50 mm ²	SF-31	1 /1.D31D3	A192.1	2 /1.D11D1	720
F870	R2	RD/YE	1.50 mm ²	SF-32	1 /1.C21C2	A191.1	3 /1.D51D5	2400
F871	R2	RD/YE	1.50 mm ²	D1.1	3 /1.B31B3	SF-32	1 /1.C21C2	508
F872	R2	RD/YE	1.50 mm ²	SF-32	1 /1.C21C2	A192.1	3 /1.D11D1	670

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
	4425			Wrapping Hose	
SF-31,SF-32	2	DSG-CANUSA	CPX355-30	SHRINK TUBE CPX355-30	
A191.1,A192.1	2	Delphi	12147424	HOUSING 3 PIN Delphi	
D1.1	1	FCI	9148075	MALE TERMINAL 1.5 SICMA 2	
D1.1	1	FCI	9148076	MALE TERMINAL 1.5 SICMA 2	
D1.1	1	FCI	9148284	CONNECTOR 18PIN MALE 211PL182S2004 RED	A
PE4A.1.1,PE4F..1	2	G&HARTMAN	970783	0.35-1.0 Terminal Ring M6 970783	
SF-31,SF-32	2	LEAR	25770.123.178	SPLICE LEAR 25770.123.178	
A191.1,A192.1	4	Lear	25703.123.178	0.35-0.6 TERMINAL SOCKET 1.6 FEMALE 25703.123.178	
A191.1,A192.1	2	Lear	25704.123.178	0.75-1.5 TERMINAL SOCKET 1.6 FEMALE 25704.123.178	



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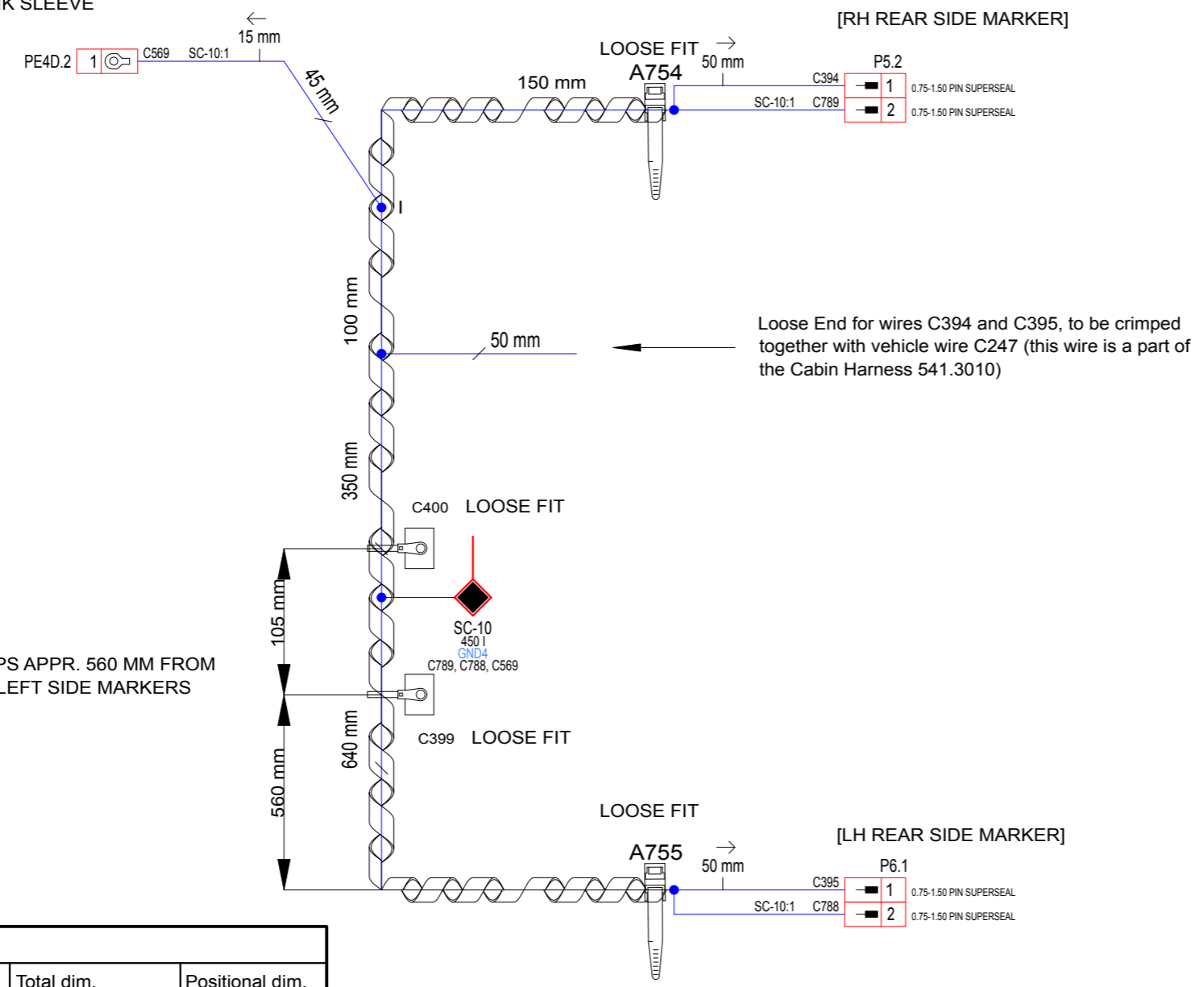
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A306		Description	Page 1 of 1
HEAD LAMP LEVELLING FRONT		Drawing no	Status
		541.HEAD LAMP LEV FR DRAFT	



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1		2		3		4		5		6				
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Lenght (mm) (Cu)	Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
C789	R2	BK	0.50 mm ²	P5.2	2 /1.C31C3	SC-10	1 /1.D21D2	650	P5.2,P6.1	5			1.80-2.39 SWS SUPERSEAL	
C788	R2	BK	0.50 mm ²	P6.1	2 /1.F31F3	SC-10	1 /1.D21D2	690	SC-10	1			GENERAL SPLICE	
C394	R2	RD/YE	0.50 mm ²	P5.2	1 /1.C31C3	Loose End	1 /1.D31D3	350	A755	1980			Loosely Wounded Tape	
C395	R2	RD/YE	0.50 mm ²	P6.1	1 /1.F31F3	Loose End	1 /1.D31D3	1090	A754,A755	2	CHIP MARKETING AB/JETPRESS LIMITED	CAT054-BLK	Strips	
C569	R2	BK	0.75 mm ²	PE4D.2	1 /1.C21C2	SC-10	1 /1.D21D2	510	PE4D.2	1	G&HARTMAN	970783	0.35-1.0 Terminal Ring M6 970783	
									C399,C400	2	HELLERMANN TYTON	156-00049	Clip Edge	
									P5.2,P6.1	2	TYCO	282104-1	CONNECTOR 2PIN MALE SUPERSEAL 282104-1	
									P5.2,P6.1	4	TYCO	282109-1	0.75-1.5 TERMINAL MALE SUPERSEAL 282109-1	

ALL GROUND TERMINALS SHALL BE SOLDERED AFTER CRIMP AND COVERED WITH SHRINK SLEEVE



PUT THE EDGE CLIPS APPR. 560 MM FROM THE BACK OF THE LEFT SIDE MARKERS CONNECTOR.

Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

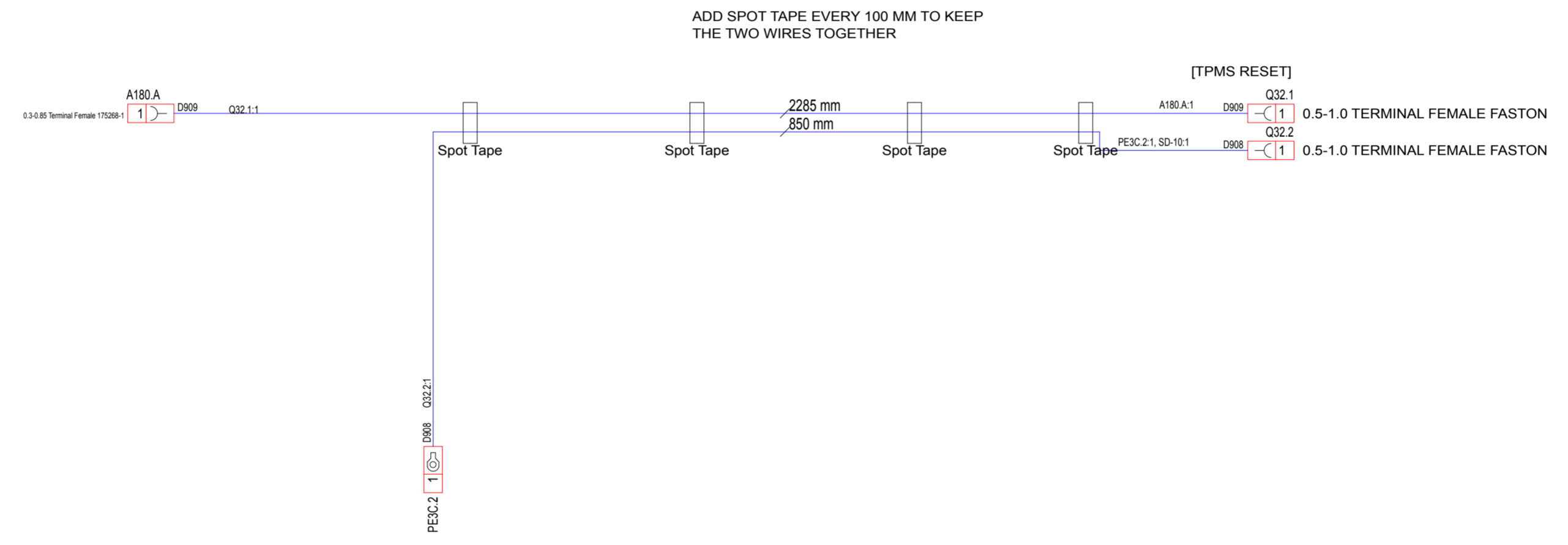
-	Add on harness	-	-	MSV	-
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNESS		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
-	Approved by	A3	Sheet Size	Created 20100901	Change Date 20101001
A306		Description		Page 1 of 1	Status
Side Marker US		541.SIDE MARKER		DRAFT	

Plotted: 16.05.2011 13:35 msv

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
D908	R2	BK	0.50 mm ²	SD-23	1 /1.F51F5	Q32.2	1 /1.E71E7	850
D909	R2	GY	0.50 mm ²	A180.A	1 /1.E31E3	Q32.1	1 /1.E71E7	2285

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
PE3C.2	1	G&HARTMAN	970789	1.5-2.5 TERMINAL RING M6 970789	
Q32.1,Q32.2	2	TYCO	160684-2	0.5-1.0 TERMINAL FEMALE FASTON 2.8x0.5	
A180.A	1	Tyco	175268-1	0.70II AWG22-AWG18 Terminal Female	
A180.A	1	Tyco	917992-1	CONNECTOR TYCO 26 PIN FEMALE	
Q32.1,Q32.2	2	Tyco	925387-1	Faston 1 Pin Insulation Sleeve 2.8 Clear	



ALL GROUND TERMINALS SHALL BE SOLDERED AFTER CRIMP AND COVERED WITH SHRINK SLEEVE

ADD SPOT TAPE EVERY 100 MM TO KEEP THE TWO WIRES TOGETHER

[TPMS RESET]

CABLES TPMS855H and TPMS855L TWISTED 40 +/- 2 TURNS/m

Length tolerances

Nominal length	Tolerances					
	Partial dim.		Total dim.		Positional dim.	
	+	-	+	-		
- 500	15	5	20	0	±10	
>500 - 1500	25	5	30	0	±10	
>1500 - 4000	30	10	50	0	±15	
>4000 - 5000	30	10	100	0	±20	
>5000	2%	0,5%	2%	0	±20	

General tolerance positioning of cable ties and clips: ±5 mm

-	Rework Harness for TPMS US market	US	20100815	MSV	-
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNES		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A2	Sheet Size	Created	Change Date	Page
A306		Description		Drawing no	Status
TPMS DASH		541.TPMS DASH		DRAFT	

Plotted: 16.05.2011 13:35 msv

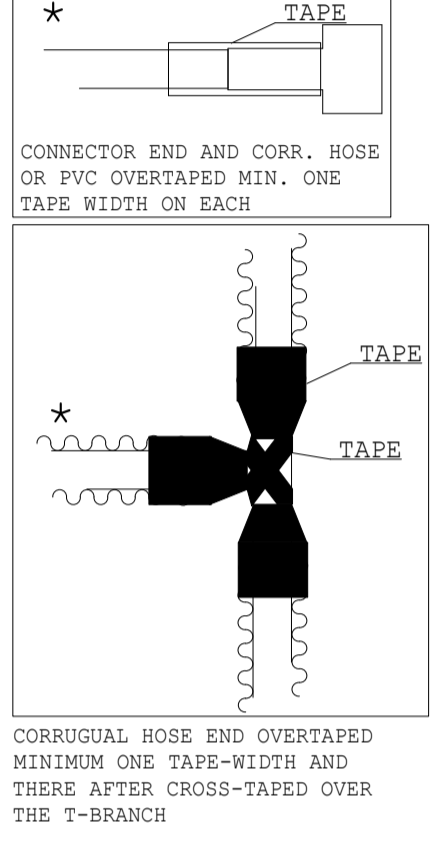
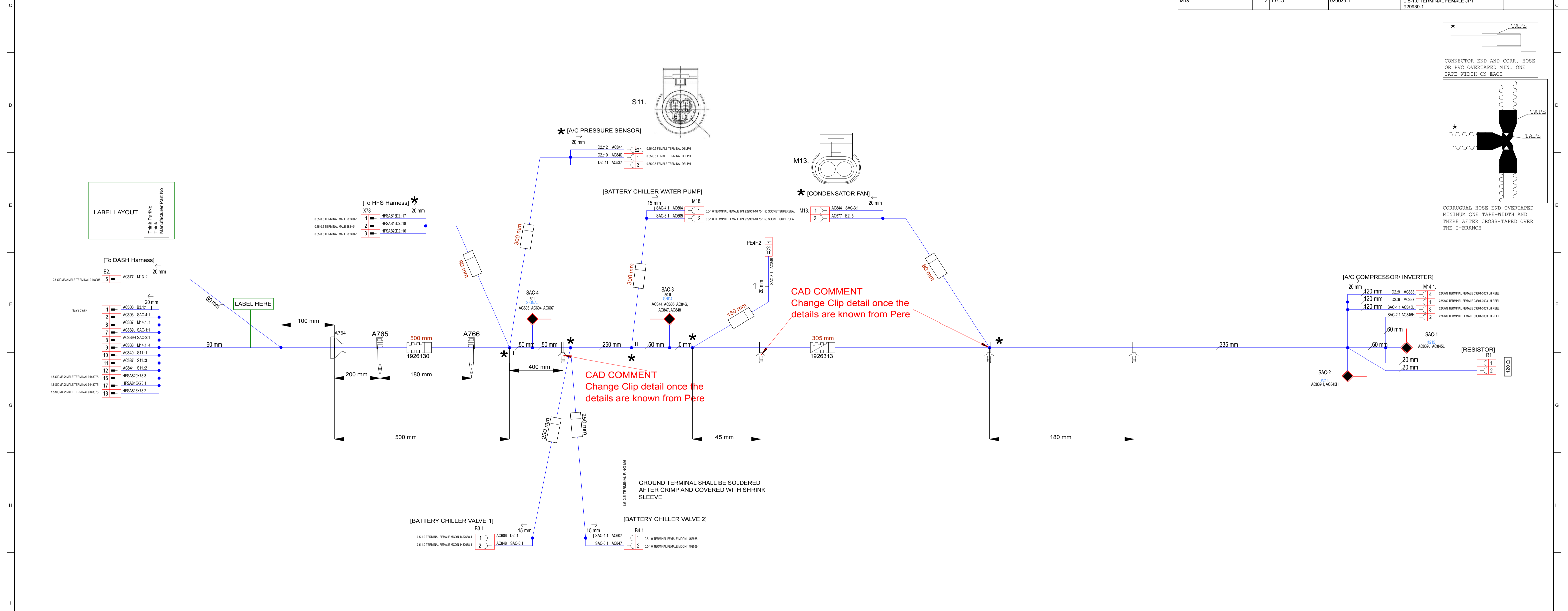
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)		
AC337	R2	WHRD	0.50 mm²	M14.1	1	1.F191F15	D2	6	1.F191F15	2165
AC338	R2	BK	0.50 mm²	M14.1	4	1.F191F15	D2	9	1.F191F15	2145
AC337	R2	WHVT	0.50 mm²	D2	11	1.G21G2	S11	3	1.F191F15	1000
AC377	R2	YE8K	2.50 mm²	E2	5	1.F21F2	M13	2	1.F191F15	1770
AC693	R2	RD	0.75 mm²	SAC-4	1	1.F191F15	D2	2	1.F191F15	750
AC694	R2	RD	0.75 mm²	SAC-4	1	1.F191F15	M18	1	1.F191F15	615
AC695	R2	BK	0.75 mm²	M18	2	1.F191F15	SAC-3	1	1.F191F15	365
AC696	R2	RD	0.75 mm²	D2	1	1.F21F2	B3.1	1	1.F191F15	815
AC697	R2	RD	0.75 mm²	SAC-4	1	1.F191F15	B4.1	1	1.F191F15	65
AC692	R2	WH	0.50 mm²	D2	3					
AC339H	R2	WH	0.50 mm²	D2	8	1.F21F2	SAC-2	1	1.G141G14	2005
AC339L	R2	BU	0.50 mm²	SAC-1	1	1.F191F15	D2	7	1.F21F2	2665
AC340	R2	BK	0.50 mm²	D2	12	1.G21G2	S11	1	1.G171G17	1000
AC841	R2	WHOG	0.50 mm²	S11	2	1.F191F15	D2	10	1.G21G2	1000
AC844	R2	BK	2.50 mm²	SAC-3	1	1.F191F15	M13	1	1.F191F15	690
AC846	R2	BK	4.00 mm²	SAC-3	1	1.F191F15	PE4F2	1	1.F191F15	200
AC847	R2	BK	0.75 mm²	SAC-3	1	1.F191F15	B4.1	2	1.F191F15	315
AC848	R2	BK	0.75 mm²	SAC-3	1	1.F191F15	B3.1	2	1.F191F15	315
AC349H	R2	WH	0.50 mm²	SAC-2	1	1.G141G14	M14.1	2	1.F191F15	140
AC349L	R2	BU	0.50 mm²	SAC-1	1	1.F191F15	M14.1	3	1.F191F15	200
HFS4820	R2	VT	0.50 mm²	D2	16	1.G21G2	X78	3	1.E41E4	790
HFS4816	R2	BK	0.50 mm²	D2	18	1.G21G2	X78	2	1.E41E4	790
HFS4815	R2	GY	0.50 mm²	D2	17	1.G21G2	X78	1	1.E41E4	790
HFS4820	R2	VT	0.50 mm²	D2	16	1.G21G2	X78	3	1.E41E4	790
HFS4816	R2	BK	0.50 mm²	D2	18	1.G21G2	X78	2	1.E41E4	790
HFS4815	R2	GY	0.50 mm²	D2	17	1.G21G2	X78	1	1.E41E4	790

Additional parts added in kit

QTY	SUPPLIER	PART#	DESCRIPTION
1	Little Fuse	299025	25A Maxi Fuse

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
B3.B4.1	4			0.5-1.0 TERMINAL FEMALE MCON 1452668-1	
SAC-1,SAC-2	2			GENERAL SPLICE	
R1	1			Resistor 120 Ohm min. (0.3W, +/-5%)	ELFA 60-103-83
A720	1		1400	Wrapping Hose	
-X78	1	AMP	GET14-20	GROMMET M32 IP-67	
S11	3	DELPHI	282105-1	SUPERSEAL 1.5 SERIES 3PIN MALE	
S11	3	DELPHI	153 26 266	0.35-0.5 FEMALE TERMINAL DELPHI	
S11	3	DELPHI	153 05 351	SWS 3.6 mm Yellow 153 05 351	
S11	1	Delphi	153 97 275	HOUSING 3 PIN Delphi 153 97 275	
E2	1	FCI	211PL123S9004	CONNECTOR 12PIN MALE 211PL123S9004	9148277 (VOLVO)
E2	1	FCI	9148085	MALE TERMINAL 2.8 SICMA2	
D2	1	FCI	9148284	CONNECTOR 18PIN MALE 211PL182S2004 RED	
PE4F2	1	G&HARTMAN	970789	1.5-2.5 TERMINAL RING M6 970789	
IC354,C355	2	HELLERMANN	TSOR-F77 BLACK	CLIPS TSOR-F77 BLACK	
M14.1	4	MOLEX	03301-3003	22AWG TERMINAL FEMALE 03301-3003 LH REEL	
M14.1	1	MOLEX	33471-0401	CONNECTOR 4PIN FEMALE 33471-0401	
	285	SCHLEMMER	1926313	CORRUGATED TUBE NW13 UNSLIT BLACK	
	1445	SCHLEMMER	1926313	CORRUGATED TUBE NW13 SLIT BLACK - 1926313	
	125	TESA	51608-09-15	TAPE TEXTILE TESA 51608-09-15	
M18	1	TYCO	1-967412-2	CONNECTOR 2PIN FEMALE JPT 1-967412-2	
B3.B4.1	2	TYCO	1670916-1	CONNECTOR 2PIN FEMALE 1670916-1	
M13	1	TYCO	282080-1	CONNECTOR 2PIN FEMALE SUPERSEAL 282080-1	
-X78	3	TYCO	282109-1	0.75-1.5 TERMINAL MALE SUPERSEAL 282109-1	
M13	2	TYCO	282110-1	0.75-1.5 TERMINAL FEMALE 282110-1	
M18	2	TYCO	828904-2	SWS ID1 2-2-1 JPT 828904-2	
M18	2	TYCO	929939-1	0.5-1.0 TERMINAL FEMALE JPT 929939-1	



ALL CONNECTOR VIEWS ARE SEEN FROM THE WIRE SIDE WHEN NOTHING ELSE IS STATED

CABLES AC839H+AC839L, AC845H+AC845L, TWISTED 40±2 TURNS/M

WIRES THAT ENTERS Y OR T-PIECE WITHOUT CORRUGATED HOSE SHALL BE PROTECTED WITH TAPE

ALL DIMENSIONS FROM Y AND T-PIECES SHALL BE MEASURED FROM CENTER/CROSSING POINT

IF NOTHING ELSE GIVEN GENERAL TOLERANCE FOR CABLE TIES ±5mm

Length tolerances

Nominal length	Tolerances		
	Partial dim.	Total dim.	Positional dim.
- 500	15	5	±10
>500 - 1500	25	5	±10
>1500 - 4000	30	10	±15
>4000 - 5000	30	10	±20
>5000	30	10	±20

General tolerance positioning of cable ties and clips: ±5 mm

Rev.	Description	Change Req.	Date	Prepared	Approved
B	Corrections		Gen-2 20101122	JJF	PBA
A	New harness		Gen-2 20100707	MSV	PBA

HARNESS Document type

MSV Prepared by

A306 MY2011 Pre-series File name

Approved by A1 Sheet Size Created 22.11.2010 Change Date 20100913 Page 1 of 1

A306 KIT HARNESS A/C Description Drawing no 541.XXXX.A Status DRAFT

P00001 16.03.2011

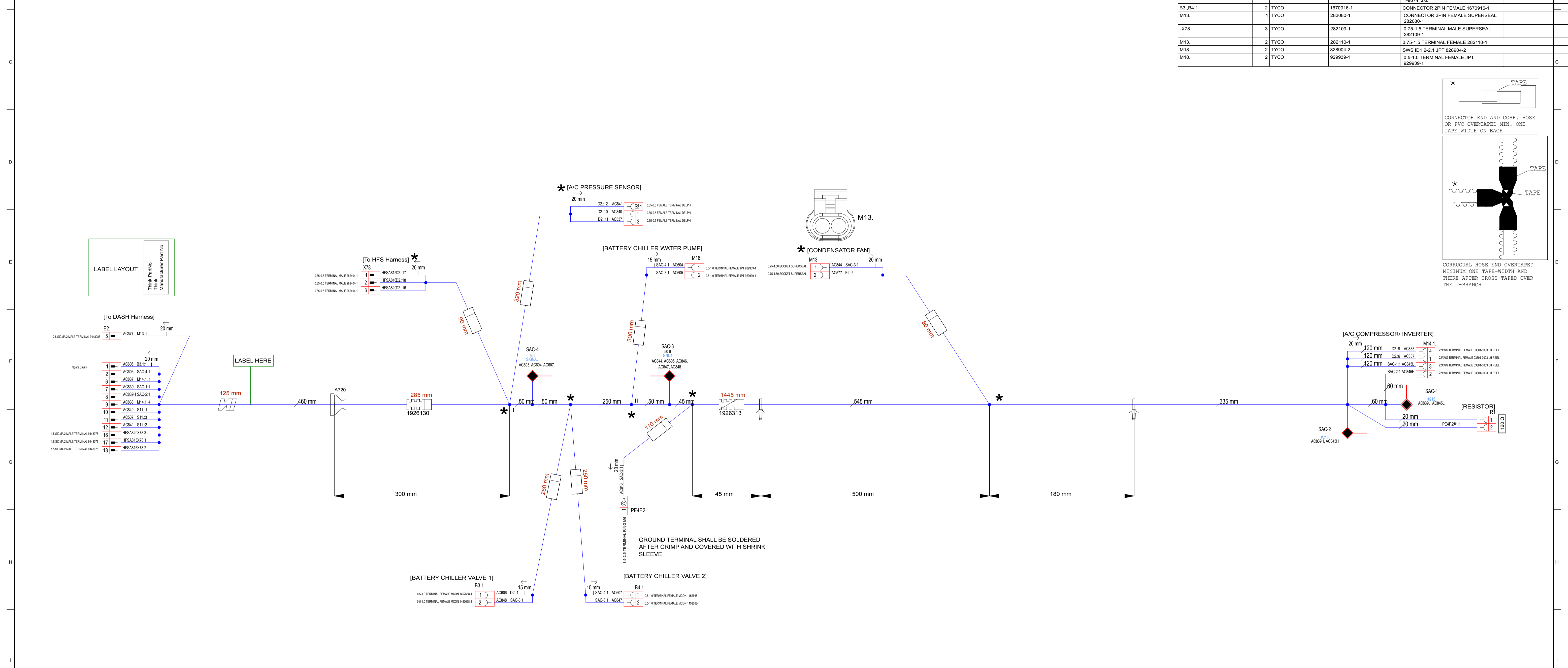
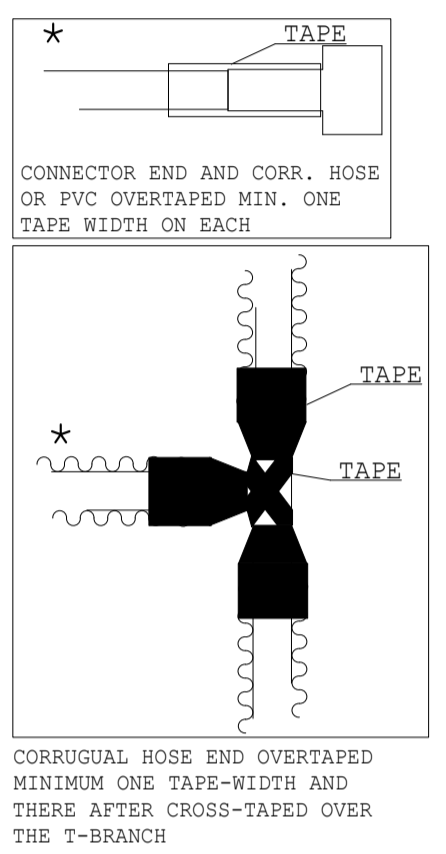
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)
AC337	R2	WHRD	0.50 mm ²	M14.1	1	F191F15	D2	6
AC338	R2	BK	0.50 mm ²	M14.1	4	F191F15	D2	9
AC337	R2	WHVT	0.50 mm ²	D2	11	G21G2	S11	3
AC377	R2	YE8K	2.50 mm ²	E2	5	F191F2	M13	2
AC693	R2	RD	0.75 mm ²	SAC-4	1	F191F6	D2	2
AC694	R2	RD	0.75 mm ²	SAC-4	1	F191F6	M18	1
AC695	R2	BK	0.75 mm ²	M18	2	F191F7	SAC-3	1
AC696	R2	RD	0.75 mm ²	D2	1	F191F2	B3.1	1
AC697	R2	RD	0.75 mm ²	SAC-4	1	F191F6	B4.1	1
AC698	R2	WH	0.50 mm ²	D2	8	F191F2	SAC-2	1
AC699	R2	BU	0.50 mm ²	SAC-1	1	F191F5	D2	7
AC940	R2	BK	0.50 mm ²	S11	2	F191F7	D2	10
AC941	R2	WHOG	0.50 mm ²	D2	12	G21G2	S11	1
AC944	R2	BK	2.50 mm ²	SAC-3	1	F191F7	M13	1
AC946	R2	BK	4.00 mm ²	SAC-3	1	F191F7	PE4F.2	1
AC947	R2	BK	0.75 mm ²	SAC-3	1	F191F7	B4.1	2
AC948	R2	BK	0.75 mm ²	SAC-3	1	F191F7	B3.1	2
AC949	R2	WH	0.50 mm ²	SAC-2	1	G141G14	M14.1	2
AC949L	R2	BU	0.50 mm ²	D2	1	F191F5	M14.1	3
HFS400	R2	VT	0.50 mm ²	D2	16	G21G2	X78	3
HFS416	R2	BK	0.50 mm ²	SAC-1	18	G21G2	X78	2
HFS415	R2	GY	0.50 mm ²	D2	17	G21G2	X78	1

Additional parts added in kit

QTY	SUPPLIER	PART#	DESCRIPTION
1	Hella	4RA 007 865 031	Relay Solid State 12V 18 (12A)

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
B3.B4.1	4			0.5-1.0 TERMINAL FEMALE MCON 1452668-1	
SAC-1,SAC-2	2			GENERAL SPLICE	
R1	1			Resistor 120 Ohm min. (0.3W, +/-5%)	ELFA 60-103-83
A720	1			Wrapping Hose	
-X78	1	AMP	GET14-20	GROMMET M32 IP-67	
S11	3	DELPHI	282105-1	SUPERSEAL 1.5 SERIES 3PIN MALE	
S11	3	Delphi	153 26 266	0.35-0.5 FEMALE TERMINAL DELPHI	
S11	1	Delphi	153 05 351	SWS 3.6 mm Yellow 153 05 351	
S11	1	Delphi	153 97 275	HOUSING 3 PIN Delphi 153 97 275	
E2	1	FCI	211PL123S9004	CONNECTOR 12PIN MALE 211PL123S9004	9148277 (VOLVO)
E2	1	FCI	9148085	MALE TERMINAL 2.8 SICMA2	
D2	1	FCI	9148284	CONNECTOR 18PIN MALE 211PL182S2004 RED	
PE4F.2	1	G&HARTMAN	970789	1.5-2.5 TERMINAL RING M6 970789	
IC354,C355	2	HELLERMANN	TSOR-F77 BLACK	CLIPS TSOR-F77 BLACK	
M14.1	4	MOLEX	03301-3003	22AWG TERMINAL FEMALE 03301-3003 LH REEL	
M14.1	1	MOLEX	33471-0401	CONNECTOR 4PIN FEMALE 33471-0401	
	285	SCHLEMMER	1926313	CORRUGATED TUBE NW13 UNSLIT BLACK - 1926313	
	125	TESA	51608-09-15	TAPE TEXTILE TESA 51608-09-15	
M18	1	TYCO	1-967412-2	CONNECTOR 2PIN FEMALE JPT 1-967412-2	
B3.B4.1	2	TYCO	1670916-1	CONNECTOR 2PIN FEMALE 1670916-1	
M13	1	TYCO	282080-1	CONNECTOR 2PIN FEMALE SUPERSEAL 282080-1	
-X78	3	TYCO	282109-1	0.75-1.5 TERMINAL MALE SUPERSEAL 282109-1	
M13	2	TYCO	282110-1	0.75-1.5 TERMINAL FEMALE 282110-1	
M18	2	TYCO	828904-2	SWS ID1 2-2-1 JPT 828904-2	
M18	2	TYCO	929939-1	0.5-1.0 TERMINAL FEMALE JPT 929939-1	



Length tolerances

Nominal length	Tolerances		
	Partial dim.	Total dim.	Positional dim.
> -500	15	5	±10
>500 - 1500	25	5	±10
>1500 - 4000	30	10	±15
>4000 - 5000	30	10	±20
>5000	30	0,5%	±20

General tolerance positioning of cable ties and clips: ±5 mm

ALL CONNECTOR VIEWS ARE SEEN FROM THE WIRE SIDE WHEN NOTHING ELSE IS STATED

CABLES AC839H+AC839L, AC845H+AC845L, TWISTED 40±2 TURNS/M

WIRES THAT ENTERS Y OR T-PIECE WITHOUT CORRUGATED HOSE SHALL BE PROTECTED WITH TAPE

ALL DIMENSIONS FROM Y AND T-PIECES SHALL BE MEASURED FROM CENTER/CROSSING POINT

IF NOTHING ELSE GIVEN GENERAL TOLERANCE FOR CABLE TIES ±5mm

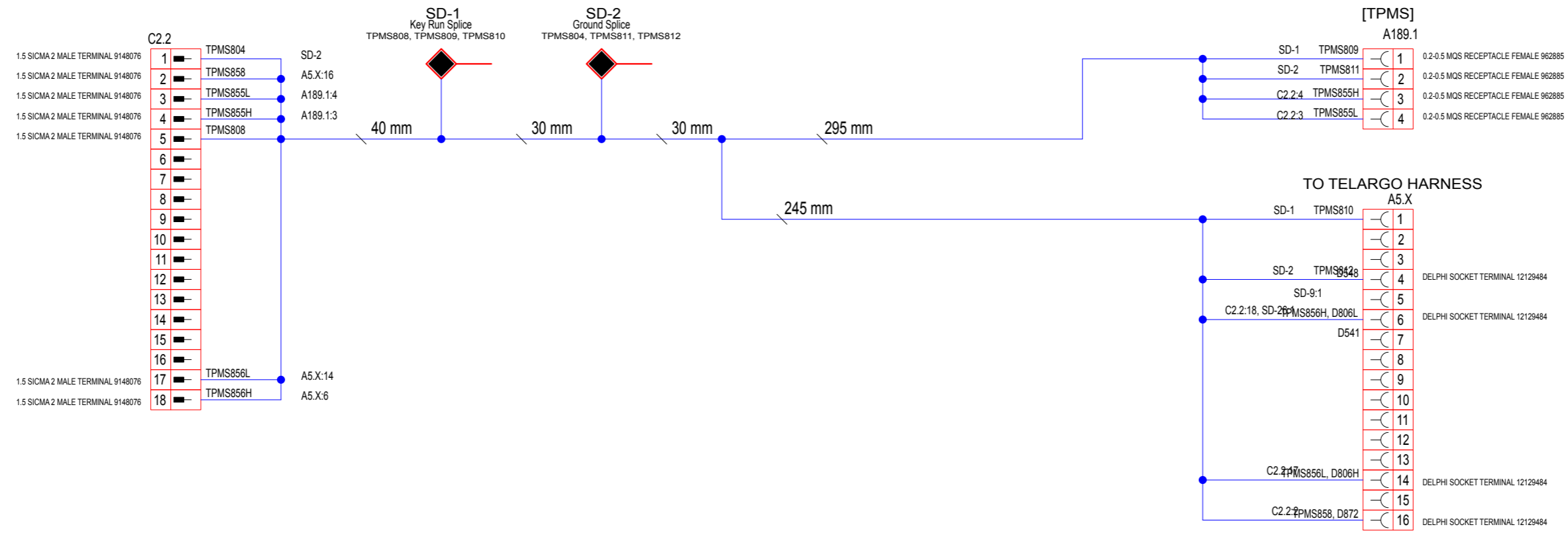
B	New function Battery Chiller	Gen-4	20100913	MSV	-
A	New harness	Gen-2	20100707	MSV	PBA
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNESS		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A1	Sheet Size	Created	Change Date	Page 1 of 1
A306 KIT HARNESS A/C		Description	20100918	20100913	Status
		541.XXXX.B			DRAFT

13:35 16.03.2011

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
TPMS804	R2	WH	0.50 mm²	C2.2	1	SD-2		1965
TPMS858	R2	WH	0.50 mm²	C2.2	2	A5.X	16	1965
TPMS855L	R2	WH	0.50 mm²	C2.2	3	A189.1	4	1965
TPMS855H	R2	WH	0.50 mm²	C2.2	4	A189.1	3	1965
TPMS808	R2	WH	0.50 mm²	C2.2	5	SD-1		1965
TPMS856L	R2	WH	0.50 mm²	C2.2	17	A5.X	14	1965
TPMS856H	R2	WH	0.50 mm²	C2.2	18	A5.X	6	1965
TPMS809	R2	WH	0.50 mm²	A189.1	1	SD-1		1965
TPMS810	R2	WH	0.50 mm²	A5.X	1	SD-1		1965
TPMS811	R2	WH	0.50 mm²	A189.1	2	SD-2		1965
TPMS812	R2	WH	0.50 mm²	A5.X	4	SD-2		1965

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A5.X	1	DELPHI	12110250	HOUSING 16 PIN ID613256	
A5.X	5	DELPHI	12129484	DELPHI SOCKET TERMINAL 12129484	
A5.X	2	DELPHI	12110251	SECONDARY LOCK ID613257	
A189.1	1	TYCO	967640-1	CONNECTOR 4PIN FEMALE 967640-1	A
A189.1	4	TYCO	962885-1	0.2-0.5 MQS RECEPTACLE FEMALE 962885-1	
A189.1	4	TYCO	967067-2	SEALING MVQ-30	
C2.2	1	FCI	211PL182S4004	CONNECTOR 18PIN MALE 211PL182S4004	
C2.2	7	FCI	9148076	1.5 SICMA 2 MALE TERMINAL 9148076	
SD-1, SD-2	2			GENERAL SPLICES	



Plotted: 16.05.2011 13:35 msv

HARNESS		Document type		THINK				
JJF		Prepared by						
A306 MY2011 Pre-series		File name						
PBA	Approved by	A3	Sheet Size	Created 30.11.2010	Change Date	Page	of	1
A306		Description		Drawing no		Status		
TPMS TELARGO				541.XXXX.C		DRAFT		

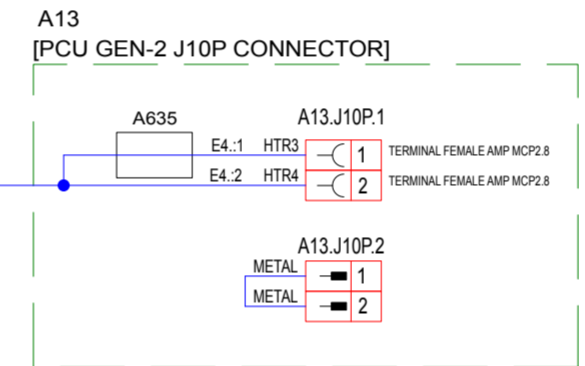
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
HTR3	R2	OG	4.00 mm ²	A13.J10P.1	1	E4	H1	700
HTR4	R2	OG	4.00 mm ²	A13.J10P.1	2	E4	H2	700

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A635	1	Raychem	RNF-3000-12/4-2-SP	SHRINK SLEEVE 12/04 WO GLUE RED	
A13.J10P.1	2	TYCO	1-968859-1	TERMINAL FEMALE AMP MCP2.8	
A13.J10P.1	1	TYCO	HVA280 (KEY A) 1587819-1	HIGH VOLTAGE HOUSING 2PIN 2PH	

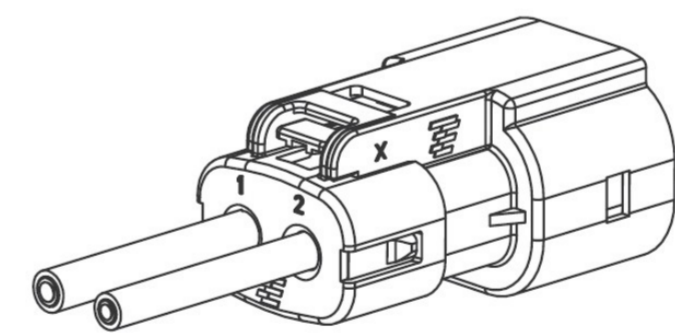
CRIMP SLEEVES ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND

PIGTAIL FOR FLUID HEATER MOUNTED ON THE HEATER.



RED SHRINK SLEEVE OVER CAVITY 1 TO INDICATE POLARITY

MOUNTING INSTRUCTIONS FOR HV280 2PH CONNECTOR SEE INSTRUCTION SHEET 408-10299



A13

SUBPARTS SIZE B ACCORDING TO CUSTOMER DRAWING SUITABLE FOR 4mm² SHIELDED WIRES

(Fluid Heater)

Rev.	B	GEN-2 PCU SUPPORT	Change Req.	-	Date	20100526	Prepared	MSV	Approved	-
HARNES		Document type								THINK
MSV		Prepared by								
A306 MY2011 Pre-series		File name								
Approved by		A2		Sheet Size		Created		Change Date		Page
A306		Description		Drawing no		15/12/2009		1 of 1		Status
CABLE ASSY HVA280 4Q SHIELD		572050.B		DRAFT						

Plotted: 16.05.2011 13:35 msv

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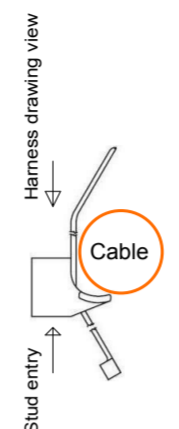
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
1	RADOK 125 HALOGEN-FREE	BK	2.50 mm ²	A40B	L1 /1.D21D2	A13.J7P.1	1 /1.D101D10	1920
2	RADOK 125 HALOGEN-FREE	BU	2.50 mm ²	A40B	L2N	A13.J7P.1	10 /1.D101D10	1920
3	RADOK 125 HALOGEN-FREE	GNYE	2.50 mm ²	A40B	PE	A13.J7P.1	15 /1.E101E10	1920
4	RADOK 125 HALOGEN-FREE	GNYE	2.50 mm ²	A40B	PE	X85.1.1	1 /1.E41E4	305
5	RADOK 125 HALOGEN-FREE	WH	0.50 mm ²	A40B	CP	A13.J7P.1	14 /1.E101E10	1920
6	RADOK 125 HALOGEN-FREE	RD	0.50 mm ²	A40B	PD	A13.J7P.1	11 /1.D101D10	1920

NOTE:
 1. CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J1654.
 2. CABLE DIMENSIONS ACCORDING TO ISO 6722:2006, HALOGEN FREE INSULATION PREFERRED.
 3. MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A13.J7P.1	3			0.8-2.0 TERMINAL FEMALE 2-66358-1 ENHANCED HIGH CUR	
A13.J7P.1	3			2.0-3.0 TERMINAL FEMALE 213847-1 Ag PLT 125 PWRBND	
X85.1.1	1	G&HARTMAN	970794	RING TERMINAL M6 2.6-6.0	
C397	1	HELLERMANN TYTON	150-10144	CLIPS T50SSB5-MC2-BK-R1	
C393,C394,C395	3	HELLERMANN TYTON	T50RSBS5.N66-BK	WELD STUD FIXING TIE BLACK	
C489,C490	2	HELLERMANN TYTON	T50R-F77	CLIPS T50R-F77 Black	
A745	1	Raychem		Crimp Sleeve ATUM 9/3 BLACK w/o glue	
	1755	SCHLEMMER	1227012	CORRUGATED TUBE 15.7/12.2 UNSLIT ORANGE	
A13.J7P.1	1	TYCO	1-206138-0	CABLE CLAMP SIZE23 CPC 1-206138-0	
A13.J7P.1	1	TYCO	796203-1	CONNECTOR 16PIN FEMALE 796203-1	
A40B	1	Yazaki	7325-8646-3W	CHARGE INLET Yazaki. CAP LH	

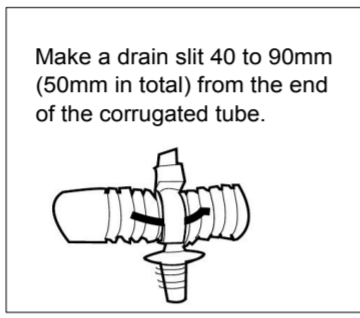
LABEL LAYOUT

Think PartNo
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 Manufacturer Part No



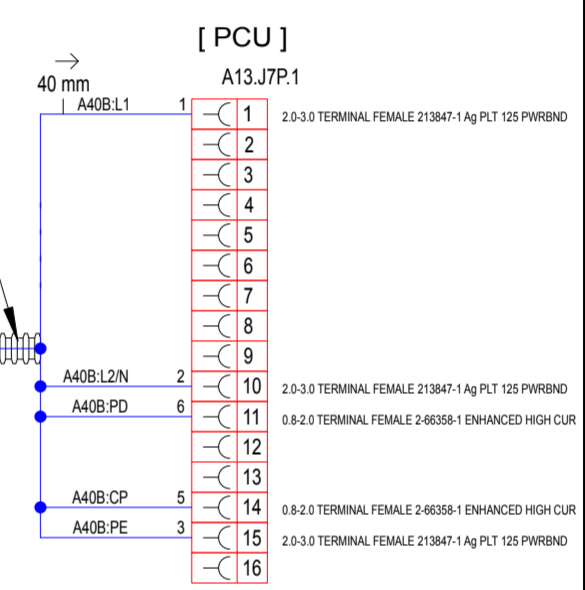
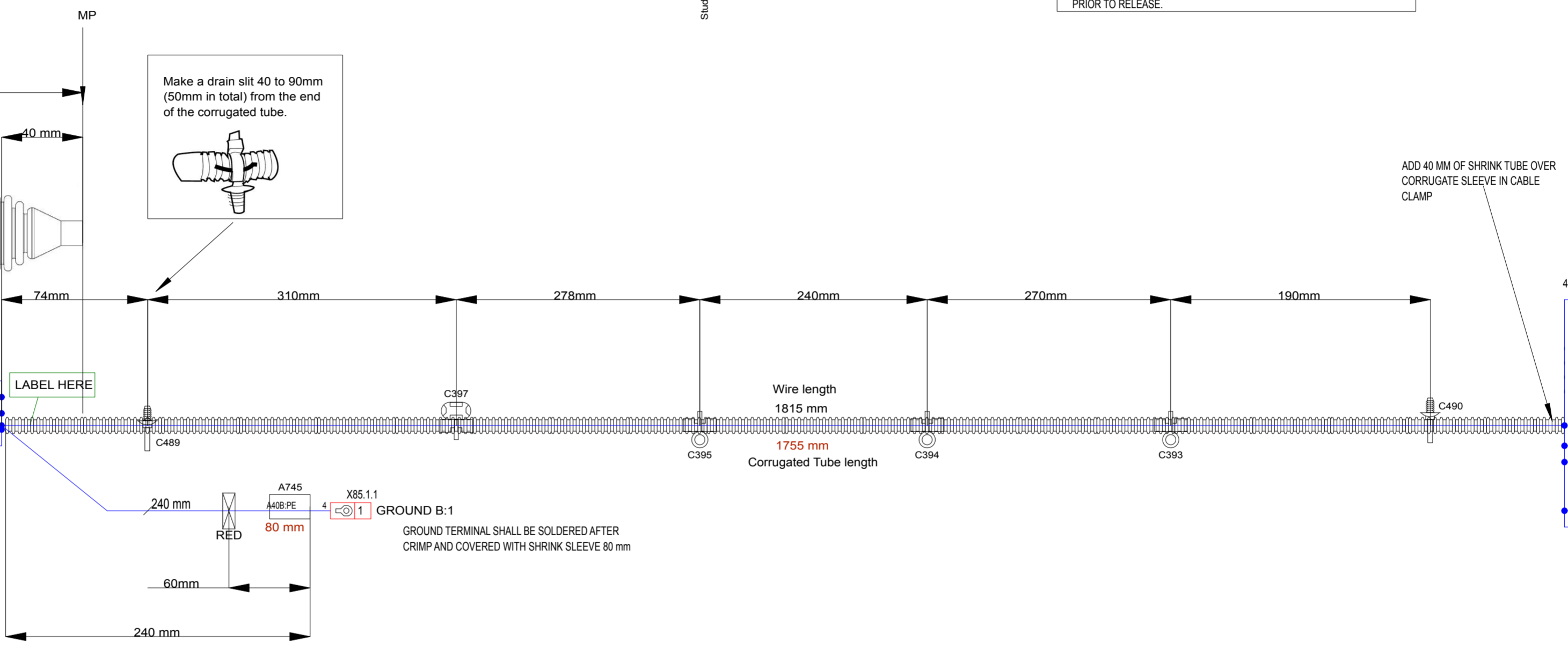
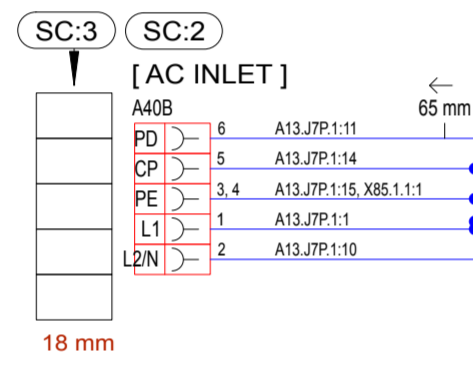
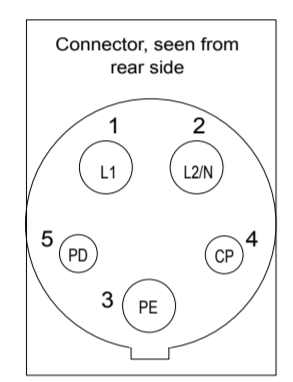
FASTENERS AND COVERS ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND DOCUMENTED PRIOR TO RELEASE.

SC:1
 There is an over-length of 40mm on the wires to protect them from Pull-Force. Over-length to be kept inside grommet.

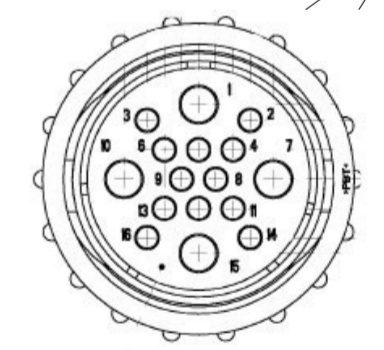


Thread the grommet onto the corrugated tube with an over-length of 40 mm.

ADD 40 MM OF SHRINK TUBE OVER CORRUGATE SLEEVE IN CABLE CLAMP



NOTE:
 It is IMPORTANT that the cavity 1 is at the top and cavity 15 is at the bottom, as in the Drawing.



SC	Significant Characteristics
1	THERE IS AN OVER-LENGTH OF 40mm ON THE WIRES TO PROTECT THEM FROM PULL FORCE. OVER-LENGTH TO BE KEPT INSIDE GROMMET. (ASSEMBLIES INCLUDING ALTERNATIVE RECEPTACLE WITHOUT GROMMET, THE STANDARD OVER-LENGTH SHOULD BE AT LEAST 20mm PR m, +2%).
2	CORRUGATED TUBE MUST BE PROPERLY FASTENED IN EACH END.
3	THE GAP IN BETWEEN TERMINAL AND WIRE ISOLATION ARE TO BE PROTECTED BY TRANSPARENT CRIMP SLEEVES ON ALL TERMINALS CRIMPED IN THE J1772 RECEPTACLE END.
4	TOOLING FOR HEX CRIMPING TERMINALS ACCORDING TO CORRESPONDING SPECIFICATIONS FROM RECEPTACLE MANUFACTURER.
CC	Critical Characteristics
1	HV ISOLATION TEST TO BE PERFORMED AFTER FULL ASSEMBLY. COMMON MODE BETWEEN L1+N TOWARDS PE+PD+CP. REQUIREMENT: NO FLASH OVER (OR SIGN OF ISOLATION BREACH) WHEN APPLYING 1500V AC FOR 1 MINUTE.

Length tolerances

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

F	N/A	New Harness	10.01.2011	N/A	JJF	PBA
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNES		Document type				
JJF		Prepared by	THINK			
A306 MY2011 Pre-series		File name				
Approved by		A2	Sheet Size	Created	Change Date	Page 1 of 1
A306		Description	42100830	20110110	Status	
MAINS INLET ASSY Yazaki		Drawing no	542.1080.F		R	

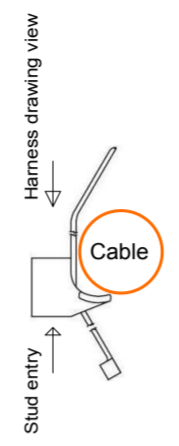
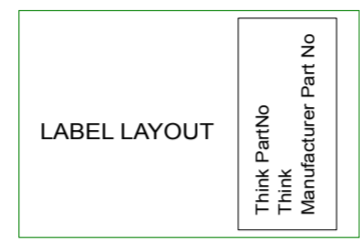
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Lenght (mm) (Cu)	
1	RADOX 125 HALOGEN-FREE	BK	2.50 mm ²	A40B1	L1	/1.D21D2	A13.J7P.2	1 /1.D101D10	2140
2	RADOX 125 HALOGEN-FREE	BU	2.50 mm ²	A40B1	L2N	/1.D21D2	A13.J7P.2	10 /1.D101D10	2140
3	RADOX 125 HALOGEN-FREE	GNYE	2.50 mm ²	A40B1	PE	/1.D21D2	A13.J7P.2	15 /1.E101E10	2140
4	RADOX 125 HALOGEN-FREE	GNYE	2.50 mm ²	A40B1	PE	/1.D21D2	X85.3	1 /1.E41E4	310
5	RADOX 125 HALOGEN-FREE	WH	0.50 mm ²	A40B1	CP	/1.D21D2	A13.J7P.2	14 /1.E101E10	2140
6	RADOX 125 HALOGEN-FREE	RD	0.50 mm ²	A40B1	PD	/1.D21D2	A13.J7P.2	11 /1.D101D10	2140

NOTE:
 1. CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J1654.
 2. CABLE DIMENSIONS ACCORDING TO ISO 6722:2006, HALOGEN FREE INSULATION PREFERRED.
 3. MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.
 4. THE LENGTHS BACK TO BACK ON THE CONNECTORS IS 2020 mm.

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
C403,C407	2	HELLERMANN	T50R-FT7 BLACK	CLIPS T50R-FT7 BLACK	
C409	1	HELLERMANN TYTON	156-00049	Clip Edge	
C404,C405,C406	3	HELLERMANN TYTON	T50RSBS5.N66-BK	WELD STUD FIXING TIE BLACK	
A745	1	Raychem		Crimp Sleeve ATUM 9/3 BLACK w/o glue	
	2020	SCHLEMMER	1227012	CORRUGATED TUBE 15.7/12.2 UNSPLIT ORANGE	
A40B1	1	FCI	F344700	CHARGE INLET FCI, CAP RH (Adiator Part No. 9011000)	
A13.J7P.2	2			0.8-2.0 TERMINAL FEMALE 2-66358-1 ENHANCED HIGH CUR	
A13.J7P.2	3			2.0-3.0 TERMINAL FEMALE 213847-1 Ag PLT 125 PWRBND	
A13.J7P.2	1	TYCO	1-206138-0	CABLE CLAMP SIZE23 CPC 1-206138-0	
A13.J7P.2	1	TYCO	796203-1	CONNECTOR 16PIN FEMALE 796203-1	
X85.2	1	G&HARTMAN	970794	RING TERMINAL M6 2.6-6.0	
	90			CRIMP SLEEVE HF W/GLUE Transpart	

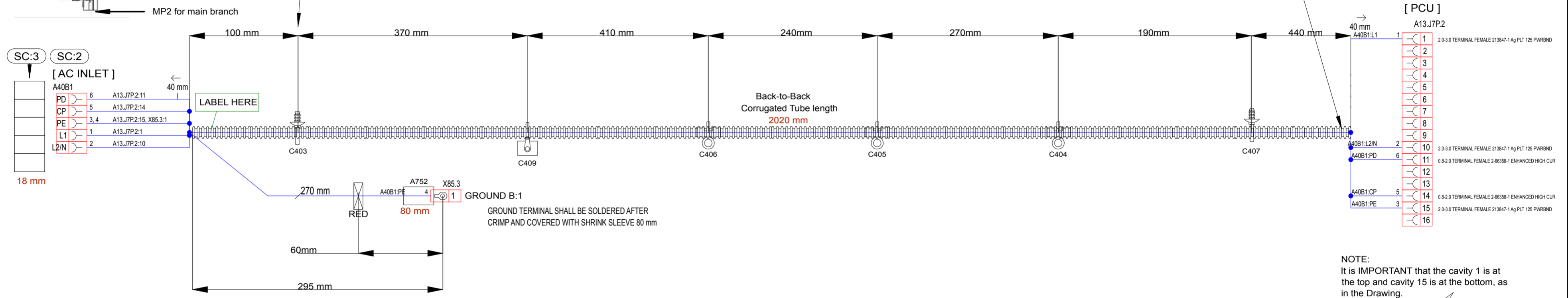
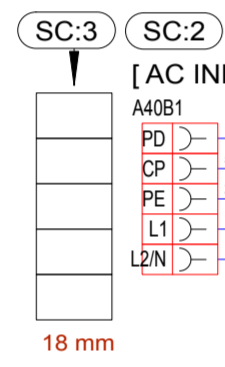
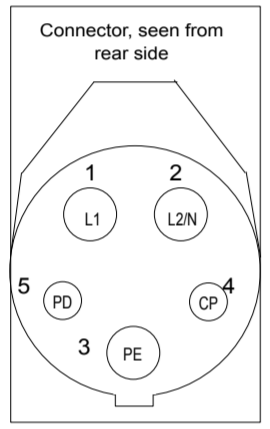
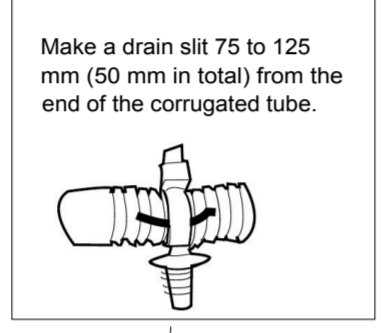


FASTENERS AND COVERS ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND DOCUMENTED PRIOR TO RELEASE.

SC:1

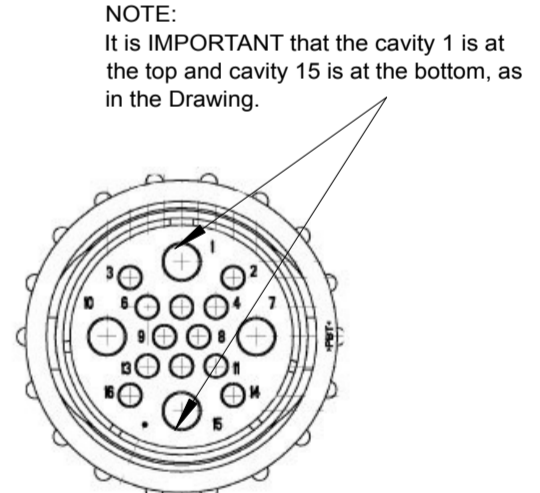
There is an over-length of 40mm on the wires to protect them from Pull-Force. Over-length to be kept inside connector A40B1

MP1 for Ground Wire 4 (cut out to be performed in rear cover to let ground wire protude; leftside from cable entry view)



Note: Distance is taken from MP1 to center of the ground eye-let

GROUND B:1
GROUND TERMINAL SHALL BE SOLDERED AFTER CRIMP AND COVERED WITH SHRINK SLEEVE 80 mm



Length tolerances

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

SC	Significant Characteristics
1	THERE IS AN OVER-LENGTH OF 40mm ON THE WIRES TO PROTECT THEM FROM PULL FORCE. OVER-LENGTH TO BE KEPT INSIDE THE CONNECTOR A40B1. (ASSEMBLIES INCLUDING ALTERNATIVE RECEPTACLE WITHOUT GROMMET, THE STANDARD OVER-LENGTH SHOULD BE AT LEAST 20mm PR m, + 2%).
2	CORRUGATED TUBE MUST BE PROPERLY FASTENED IN EACH END.
3	THE GAP INBETWEEN TERMINAL AND WIRE ISOLATION ARE TO BE PROTECTED BY TRANSPARENT CRIMP SLEEVES ON ALL TERMINALS CRIMPED IN THE J1772 RECEPTACLE END.
4	TOOLING FOR HEX CRIMPING TERMINALS ACCORDING TO CORRESPONDING SPECIFICATIONS FROM RECEPTACLE MANUFACTURER.
CC	Critical Characteristics
1	HV ISOLATION TEST TO BE PERFORMED AFTER FULL ASSEMBLY. COMMON MODE BETWEEN L1+N TOWARDS PE+PD+CP. REQUIREMENT. NO FLASH OVER (OR SIGN OF ISOLATION BREACH) WHEN APPLYING 1500V AC FOR 1 MINUTE.

A	New harness	-	20100830	MSV	-
HARNES		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by A2		Sheet Size		Created 21.09.2010	Change Date 20101026
A306		Description		Page 1 of 1	Status
MAINS INLET ASSY FCI		542.1085.A		R	

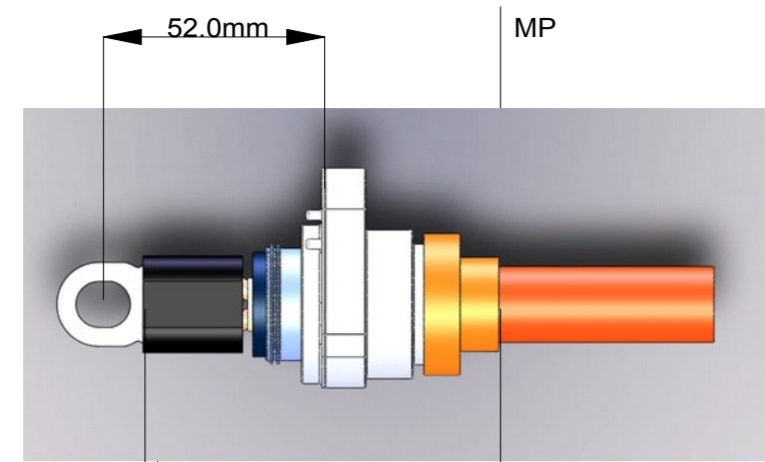
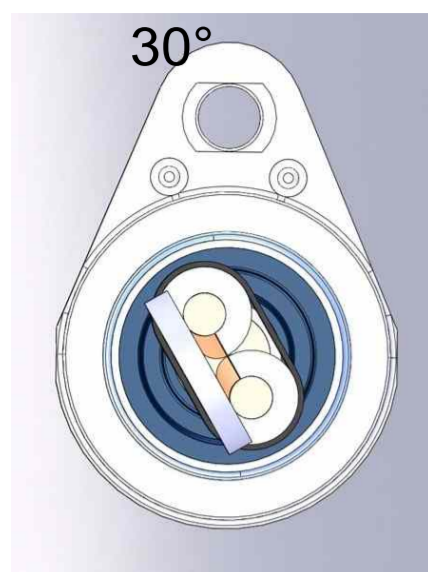
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
TB200	Nexans	OG	35.00 mm ²	-		A13.J1P	1 /1.D2	1680
TB201	Nexans	OG	35.00 mm ²	-		A13.J2P	1 /1.D2	1980

NOTE:
 1. CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J1654.
 2. CABLE DIMENSIONS ACCORDING TO ISO 6722:2006, HALOGEN FREE INSULATION PREFERRED.
 3. SHIELD NON-CURRENT CARRYING, FOR EMC AND GROUND PROTECTION ONLY.
 4. MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.

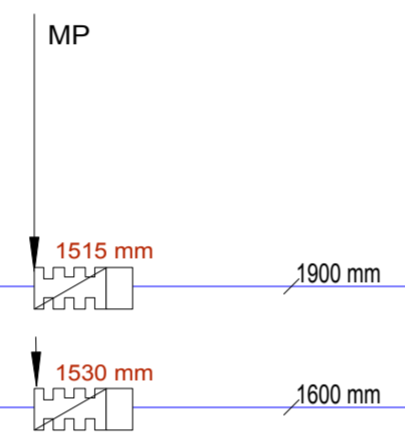
Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A13.J1P2,A13.J2P2	2			Ring Terminal Yasaki 7003-1197-02	
	60			Tightly Wound Tape	
A668,A669	2	SCHLEMMER	PA6 17 OR SLI	CORRUGATED TUBE ORANGE Ø 17 SLIT	SCHLEMMER 192632
	3045	SCHLEMMER	PA6 17 OR SLI	CORRUGATED TUBE ORANGE Ø 17 SLIT	
A13.J1P2	1	YAZAKI	7335-6310	Yazaki 1POS LETO Code U	
A13.J2P2	1	YAZAKI	7335-6311	Yazaki 1POS LETO Code V	



A13.J2P2	
V	
ELECTRICAL MACHINE "V"	
7335-6311	
3.9	-

THE CORRUGATED TUBES MP IS THE SAME MP AS FOR THE CONNECTOR

ORANGE SPOT-TAPE ROUND THE CORRUGATE TO HOLD THE SLIT



B

U	
ELECTRICAL MACHINE "U"	
7335-6310	
-	3.9

MAKE SURE THAT THE SPOT-TAPE AT THE CORRUGATE END HAVE FOUR TURNS AND THAT THE SPOT-TAPE ONLY ARE OVER THE CORRUGATE AND NOT TOUCHING THE WIRE JACKET.

**SUBPART FOR TRACTION CABLE.
 CORE, SHIELD AND JACKET TO BE CUT FLUSH AT THE B END.**

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

SC	Significant Characteristics
1	TERMINAL EYE-LETS (U, V) DISTANCE FROM SHIELDBASE TO CENTER OF TERMINAL 52.0 MM (+0.2/-0).
2	COMPLETE DESIGN VERIFIED FOR COMPLIANCE IN ACCORDANCE TO TEST METHODS SPECIFIED IN SAE J1742: - VOLTAGE DROP, WITH TEMPERATURE MEASURED AT JUNCTIONS. - ISOLATIONS RESISTANCE

?	Updates	-	20100420	MSV	-
A	NEW HARNESS	J1.V3	20100219	MSV	EFP
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNESS		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by		A2	Sheet Size	Created	Change Date
A306		Description		01/12/2009	Page 1 of 1
CABLE TRACTION SHIELD - YAZAKI 1POS LETO		Drawing no		Status	

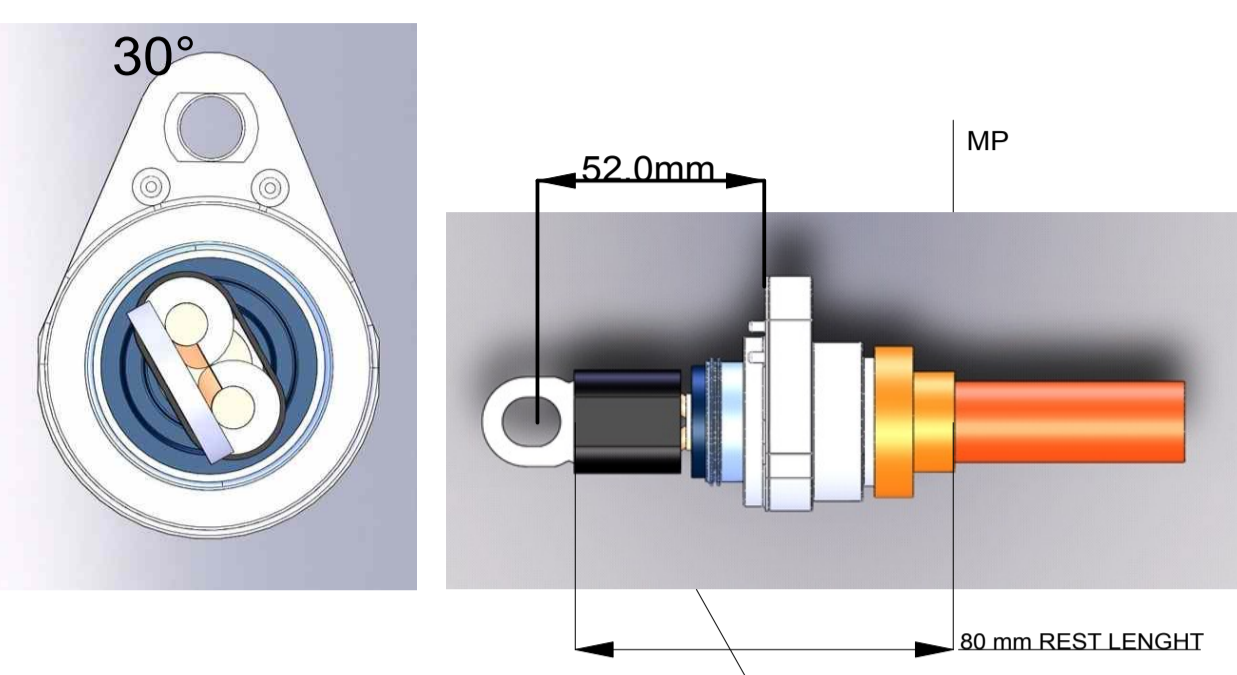
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm)
TR100	Neutral	OG	35.50 mm ²	F104S	1.1.F10	A13.TB+	1.1.F14	1920
TR101	Shield-GF	OG	35.50 mm ²	A4.X4	1.1.F12	F104P	1.1.F11	910
TR102	Neutral	OG	35.50 mm ²	A4.X4	1.1.E12	A13.TB-	1.1.E4	1955

NOTE:
 1. CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J11654.
 2. CABLE DIMENSIONS ACCORDING TO ISO 6722:2006. HALOGEN FREE INSULATION PREFERRED.
 3. SHIELD NON-CURRENT CARRYING, FOR EMC AND GROUND PROTECTION ONLY.
 4. MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.

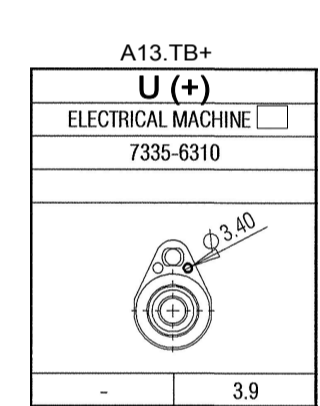
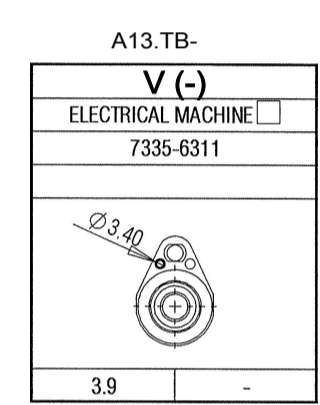
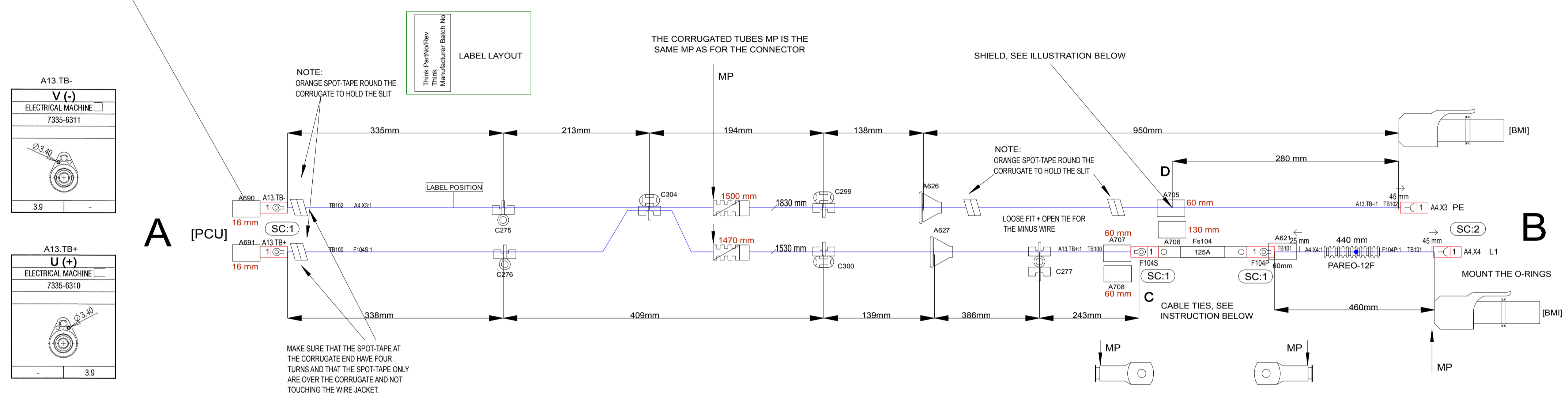
Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A690.A691	2			CRIMP SLEEVE HF WIGLUE BLACK (very thin)	
F104P.F104S	2			RING TERMINAL M8 DIN46235 35MM2	
F1112	2	Eipress	KNS-6	RING TERMINAL M8 KR Ø 0 mm2	
F15104	1	Ferraz Shawmut	6.9 gR8 000 D08V125	FUSE TRACTION NET (125A)	
C299.C300.C304	3	HELLERMANN TYTON	150-10144	CLIPS TSOSSBS-MC2-BK-R1	
C275.C276	2	HELLERMANN TYTON	T50RBSBS.N66-BK	WELD STUD FIXING TIE BLACK	
C277	1	HELLERMANN TYTON		CLIPS TSOSSBS-MCS-BK-D1	
A726	1	KS Terminals		SPLICE TUBE 6.0mm2	
A626.A627	2	Lapp Kabel	83122213	CABLE GLAND WITH MEMBRANE GET 14-20	83122213
A726	0	NITTON		ORANGE PVC TAPE	
A4.X4	1	PFISTERER	350 205-001	CONNECTOR 1 POLE 350 205-001	
A4.X3	1	PFISTERER	350 205-004	CONNECTOR 1 POLE 350 205-004	
A706.A709	2	Raychem		Crimp Sleeve ATUM 9/3 BLACK w/o glue	
A621.A705.A707	3	Raychem	Atum-19/6-0	Crimp Sleeve ATUM19/6-Black W/Glue	
A708	1	Raychem	RNF-3000-18/6-2-SP	SHRINK SLEEVE 18/6 WO GLUE RED	
A726	440	SCHLEMMER	1926012	CORRUGATED TUBE 15.7/12.2 UNSLIT ORANGE	
A666.A667	2	SCHLEMMER	PA6 17 OR SLJ	CORRUGATED TUBE ORANGE Ø 17 SLIT	SCHLEMMER 1926320
A726	2970	SCHLEMMER	PA6 17 OR SLJ	CORRUGATED TUBE ORANGE Ø 17 SLIT	
A13.TB+	1	YAZAKI	7335-6310	Yazaki 1POS LET0 Code V	
A13.TB-	1	YAZAKI	7335-6311	Yazaki 1POS LET0 Code V	



ADDITIONAL PARTS USED FOR FUSE HOLDER ASSEMBLY (SEE ILLUSTRATION BELOW)

Qty.	Supplier	Supplier Part.	THNK Part.	Description
1	Hellemann	115-0043	075.0043.A	REZ300 RED RELEASABLE TIE
2	TRFastenings	88208-S	042.0801.A	FLG HEX13 NUT DIN933 M8 A4 SD
3	TRFastenings	CV-300SB	076.010.C	ZIP TIE 4.8X300 BK
4	TRFastenings	89608	021.0801.B	SPRING WASHER DIN127B M8 A4 SD
5	TRFastenings	88708	020.0802.A	WASHER DIN125A A8.4 A4 SD
6	TRFastenings	88108	044.0801.A	HEX13 JAM NUT DIN296 M8 A4 SD
7	TPL Labels	-	553.9020.D	LBL HIGH VOLTAGE WARNING
8	THNK	-	542.3010.A	CABLE TRACTION SHIELD - YAZAKI - CONN

FASTENERS AND COVERS ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND DOCUMENTED PRIOR TO RELEASE.



MOUNT THE LID SO THAT WHEN SEEN FROM THIS ANGLE THE "HIGH VOLTAGE" IMPRINT ON TOP OF THE LID WILL BE ON THE RIGHT HAND SIDE. PLACE LABEL 553.9020.D ON LID. TOP OF LABEL SHOULD BE IN PARALLEL WITH/BELow THE 4 HOLES IN A ROW ON TOP OF THE LID. (THIS WILL BE ON THE OPPOSITE SIDE OF LID FROM WHATS AS SEEN ON DRAWING.)

SC	Significant Characteristics
1	RING TERMINALS (-A13TB+, F5104P, F5104S) USE CRIMPING TOOL ACCORDING TO DIN 48083
2	PFISTERER CONNECTORS USE CRIMPING TOOL ACCORDING TO DIN46287 PART1 AND PFISTERER DWG NO 040 003 001D
3	* PULL THE NUTS WITH TORQUE 20Nm +/- 1.0Nm ** PULL THE NUTS WITH TORQUE 5Nm +/- 0.5Nm
4	COMPLETE DESIGN VERIFIED FOR COMPLIANCE IN ACCORDANCE TO TEST METHODS SPECIFIED IN SAE J1742: - VOLTAGE DROP, WITH TEMPERATURE MEASURED AT JUNCTIONS. - ISOLATIONS RESISTANCE - DIELECTRIC WITHSTAND VOLTAGE

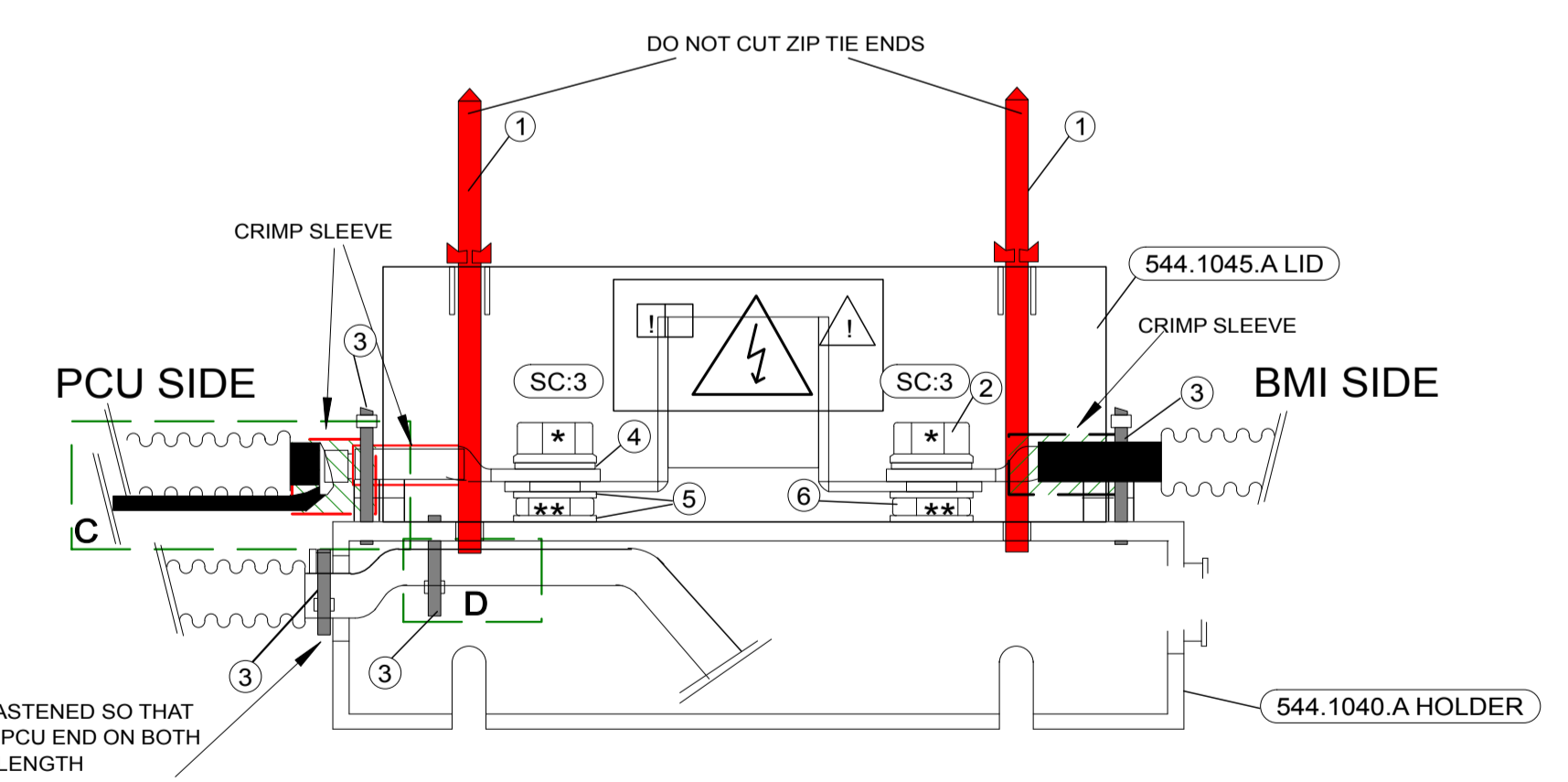
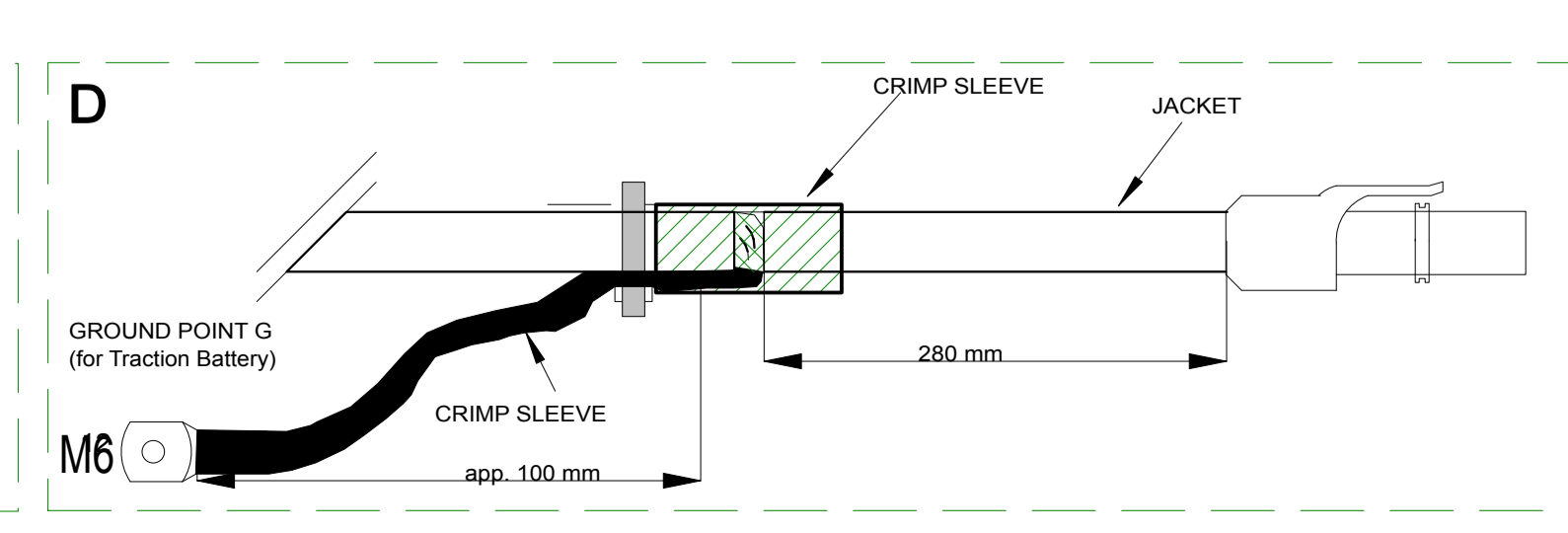
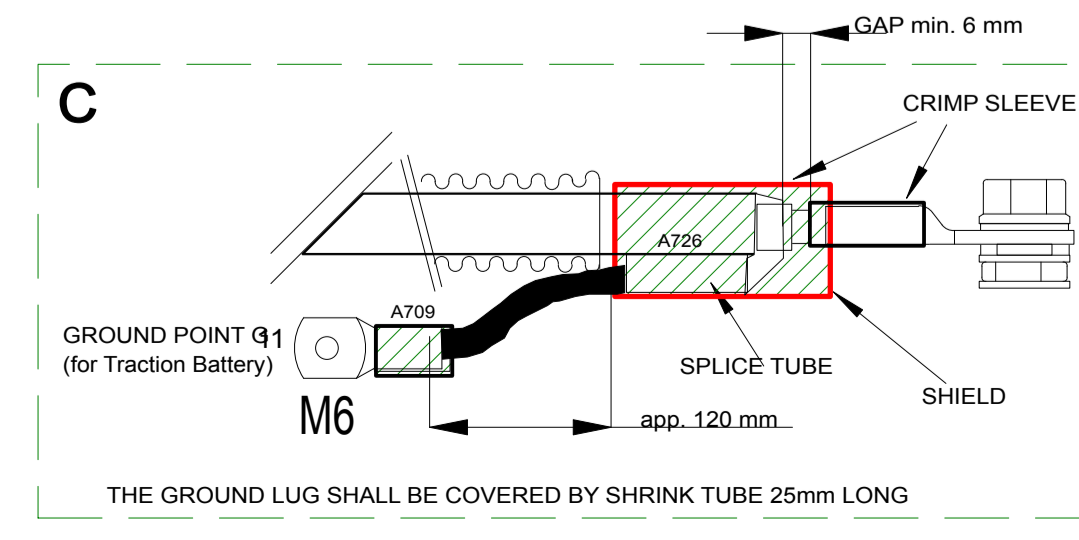
CC	Critical Characteristics
1	MINIMUM REQUIRED MANUFACTURING TEST: COMPLETE CABLE SHALL UNDERGO AND PASS A - DIELECTRIC WITHSTAND VOLTAGE, BETWEEN WIRE CORE AND SHIELD, (NO ISOLATION BREAKDOWN OR FLASHOVER, APPLIED VOLTAGE 23kV DC FOR 260 sec.) RECORD LEAKAGE CURRENT. HIGH CURRENT CONDUCTIVITY TEST, REQUIREMENTS: - VOLTAGE DROP MEASURED ON CONNECTED CORES, TERMINALS AND CABLE; (TEST CURRENT ±10A DC, MAXIMUM VOLTAGE DROP ACROSS LENGTHS ACROSS TOTAL LENGTH FROM TERMINAL U TO V, WITH TERMINALS AT THE END SHORT CIRCUITED IN THE END SHALL NOT EXCEED: 370 mV, MEASURED AT TEST CURRENT ±120.0A DC.) RECORD RESULT.

Length tolerances

Nominal length	Partial dim.	Total dim.	Positional dim.
>500 - 1500	±5	±20	±10
>1500 - 4000	±5	±30	±10
>4000 - 5000	±3	±50	±15
>5000	±3	±100	±20
>5000	±2%	±0.5%	±2%

General tolerance positioning of cable ties and clips: ±5 mm

GROUND WIRE PREPARATION C:
 1. PUT THE GROMMET OVER THE CABLE.
 2. STRIP THE WIRE 40 mm.
 3. FOLD THE SHIELD TO ONE SIDE AND TWIST IT TOGETHER.
 4. CRIMP THE SHIELD TO A 6.0 mm² BLACK WIRE AND A LENGTH OF 110 mm WITH A (CRIMP TUBE).
 5. PUT ON A RED SLEEVE WITH A LENGTH OF 60 mm TO COVER THE GAP BETWEEN THE EYE-LET TERMINAL AND THE WIRE, AND THE (CRIMP TUBE).
 6. CRIMP ON A M6 EYE-LET TERMINAL.
 7. BEND THE SHIELD WITH THE SLEEVE BACKWARDS.



GROUND WIRE PREPARATION D:
 1. PUT ON THE GROMMET OVER THE CABLE.
 2. STRIP THE WIRE 325 mm AND KEEP THE JACKET (DO NOT CUT THROUGH THE SHIELD AND DO NOT SLIT THE JACKET).
 3. REDUCE THE CUT-OFF JACKET TO 305 mm.
 4. PREPARE THE SHIELD (*).
 5. PUT ON THE OUTER 305 mm JACKET FROM (2.) ABOVE OVER THE STRIPPED NON-SHIELDED END.
 6. PUT ON A 60 mm SHRINK SLEEVE TO COVER THE GAP, OVERLAPPING THE SLEEVE OF THE SHIELD AND THE JACKET.

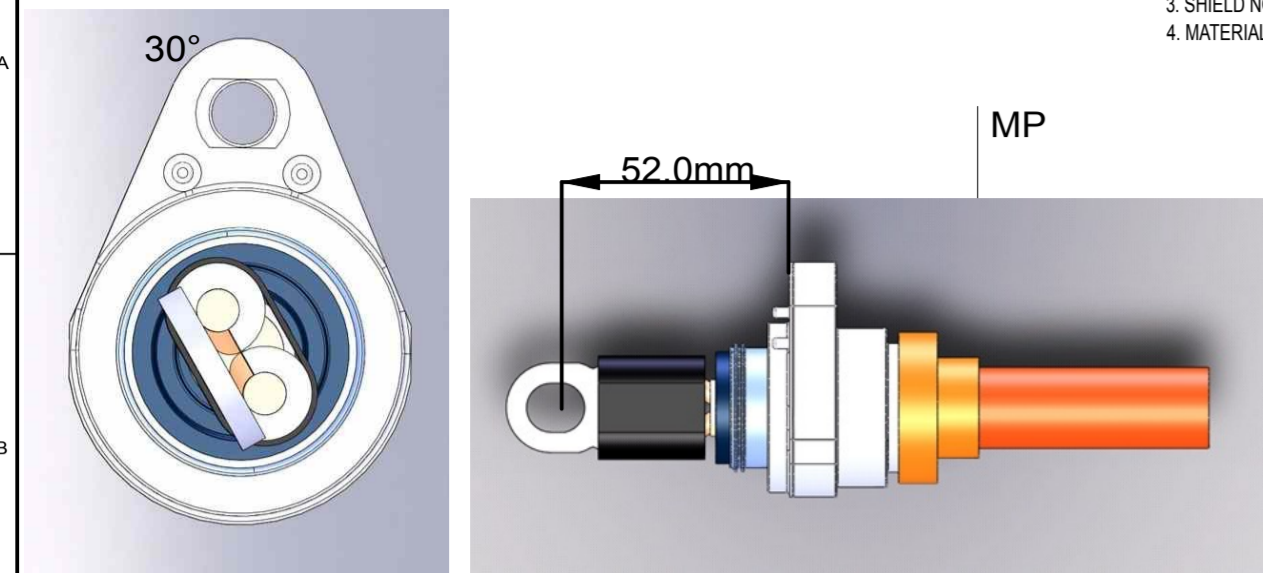
*) SHIELD PREPARATION:
 1. CUT DOWN THE SHIELD TO 125 mm LENGTH.
 2. FOLD THE SHIELD TO ONE SIDE AND TWIST IT TOGETHER.
 3. PUT ON A SLEEVE WITH A LENGTH OF 130 mm.
 4. CRIMP ON A M6 EYE-LET TERMINAL.
 5. BEND THE SHIELD WITH THE SLEEVE BACKWARDS.

Rev.	Description	Document type	Change set	Date	MSV	Prepared	Approved
A	NEW HARNESS		GEN-2	20100429	MSV	EFP	
HARNESS		Document type					
MSV		Prepared by					
A306 MY2011 Pre-series		File name					
Approved by		Sheet Size		Created		Change Date	
A1		A1		11/12/2009		Page 1 of 1	
A306		Description		Drawing no		Status	
CABLE TRACTION FEED TO PCU		542.3010.A		R			

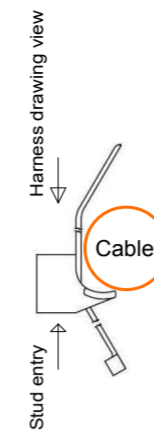
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
TB200	Nexans	OG	35.00 mm ²	A80.X3	1 /1.D8	A13.J1P	1 /1.D2	1415
TB201	Nexans	OG	35.00 mm ²	A80.X3	2 /1.D8	A13.J2P	1 /1.D2	1415

- NOTES:
- CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J1654.
 - CABLE DIMENSIONS ACCORDING TO ISO 6722:2006, HALOGEN FREE INSULATION PREFERRED.
 - SHIELD NON-CURRENT CARRYING, FOR EMC AND GROUND PROTECTION ONLY.
 - MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.



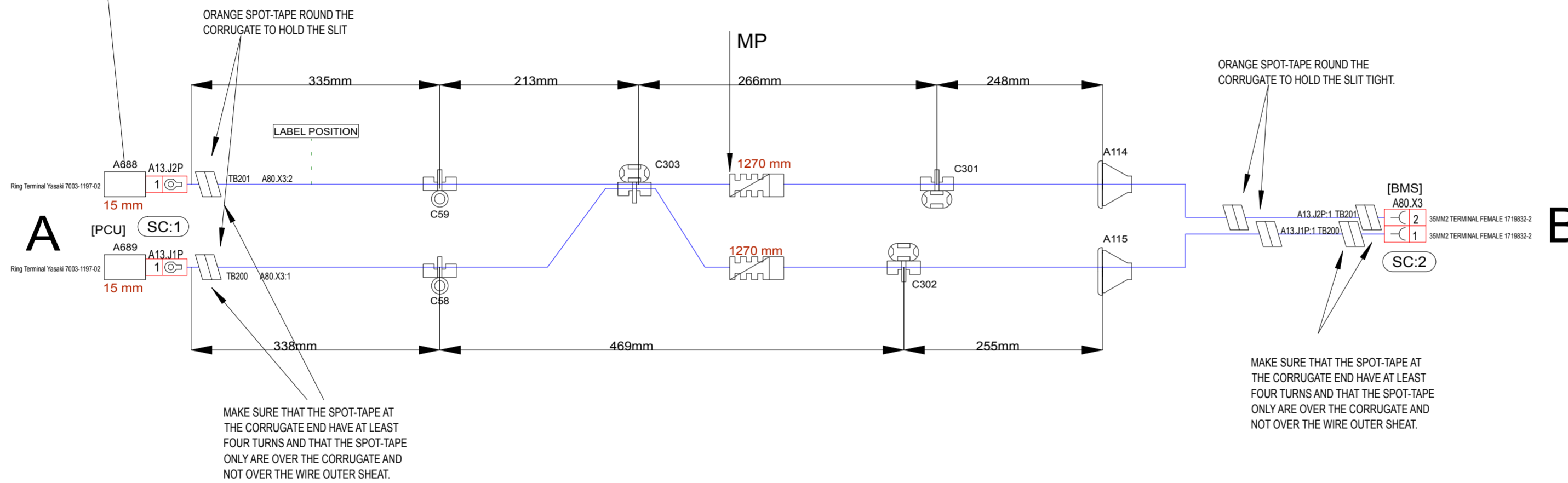
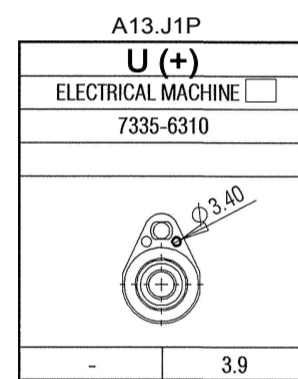
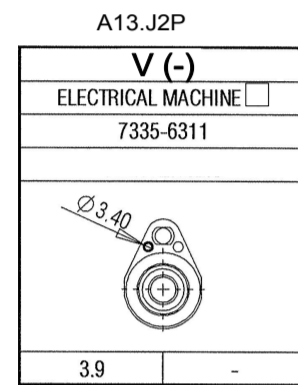
THE FASTENERS ARE DRAWN WITH ENTRY SIDE DOWN



Think PartNo/Rev
Think
Manufacturer Batch No

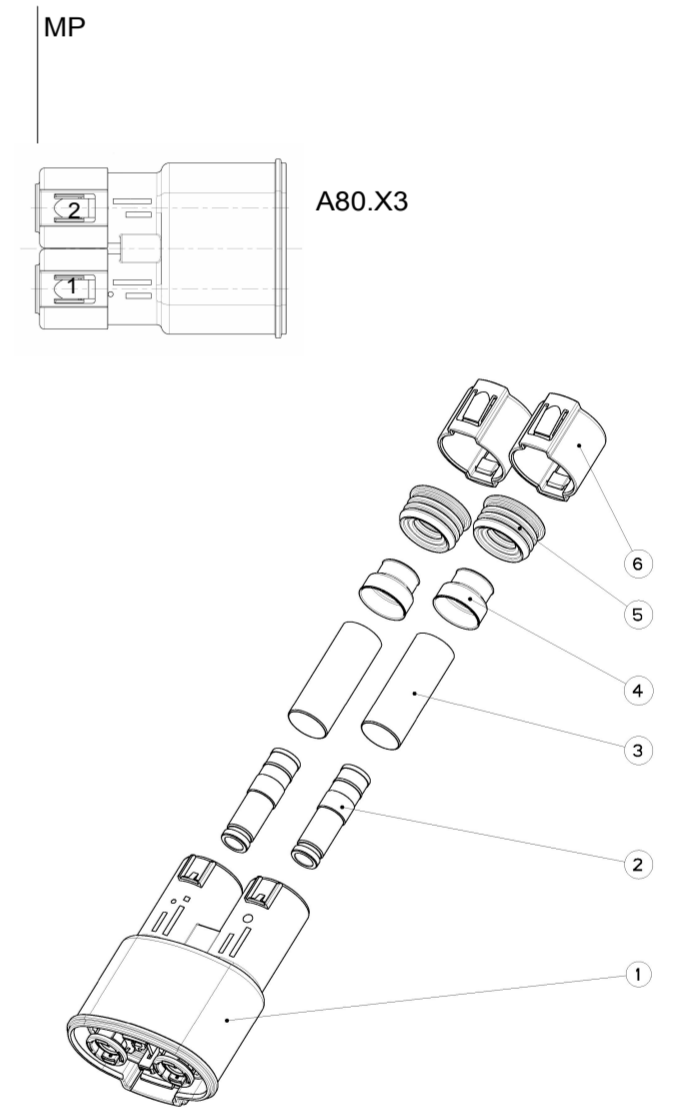
Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A688,A689	2			CRIMP SLEEVE HF W/GLUE BLACK (very thin)	
A80.X3	2			PROTECTION COVER 1719829-2	
A13.J1P,A13.J2P	2			Ring Terminal Yasaki 7003-1197-02	
C301,C302,C303	3	HELLERMANN TYTON	150-10144	CLIPS T50SSB5-MC2-BK-R1	
C58,C59	2	HELLERMANN TYTON	T50RSBS5.N66-BK	WELD STUD FIXING TIE BLACK	A
A114,A115	2	Lapp Kabel	83122213	CABLE GLAND WITH MEMBRANE GET 14-20	RUTAB TRS M32 EPDM 15-20
	0	NITTON		ORANGE PVC TAPE	
A664,A665	2	SCHLEMMER	PA6 17 OR SLI	CORRUGATED TUBE ORANGE Ø 17 SLIT	SCHLEMMER 1926320
	2540	SCHLEMMER	PA6 17 OR SLI	CORRUGATED TUBE ORANGE Ø 17 SLIT	
A80.X3	1	TYCO	1-1719821-1	CONNECTOR 2PIN FEMALE 1-1719821-1	
A80.X3	2	TYCO	1719826-2	SINGLE WIRE SEAL	
A80.X3	2	TYCO	1719830-1	8MM HV. SHIELD EMC BARREL	
A80.X3	2	TYCO	1719831-2	8MM HV. SHIELD EMC CRIMP SLEEVE	
A80.X3	2	TYCO	1719832-2	35MM2 TERMINAL FEMALE 1719832-2	
A13.J1P	1	YAZAKI	7335-6310	Yazaki 1POS LETO Code U	
A13.J2P	1	YAZAKI	7335-6311	Yazaki 1POS LETO Code V	

FASTENERS AND COVERS ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND DOCUMENTED PRIOR TO RELEASE.



MAKE SURE THAT THE SPOT-TAPE AT THE CORRUGATE END HAVE AT LEAST FOUR TURNS AND THAT THE SPOT-TAPE ONLY ARE OVER THE CORRUGATE AND NOT OVER THE WIRE OUTER SHEAT.

MAKE SURE THAT THE SPOT-TAPE AT THE CORRUGATE END HAVE AT LEAST FOUR TURNS AND THAT THE SPOT-TAPE ONLY ARE OVER THE CORRUGATE AND NOT OVER THE WIRE OUTER SHEAT.



- ORDER OF ASSEMBLY:
- ENTER TWO X BACK COVER (6) ON TO WIRES.
 - ENTER TWO X SWS (5) ON TO WIRES.
 - STRIP WIRE SHEATHING AND INNER ISOLATION.
 - CRIMP ON TWO X TERMINALS (2).
 - FOLD WIRE SHIELD AND THREAD ON EMC CRIMP SLEEVE (4) AND EMC BARREL (3).
 - MOUNT EMC CRIMP SLEEVE (4) AND EMC BARREL (3).
 - ASSEMBLY BY ENTERING TERMINALS (3) IN HOUSING (2).
 - SECURE INSERTED TERMINALS WITH GREY SECONDARY LOOKING RINGS.
 - PRESS THE SWS (5) INTO POSITION.
 - FIT AND LOCK BACK COVERS (1).

SC	Significant Characteristics
1	TERMINAL RINGS (-A13.J1P AND A13.J2P) M8 EYE-LET TERMINAL WHICH DISTANCE FROM SHIELD BASE TO CENTER OF TERMINAL 52.0mm (+0.2/-0).
2	TYCO HV CONNECTOR (A23.X3) CRIMP ACCORDING TO LATEST VERSION OF TYCO APPLICATION SPECIFICATION MANUAL 114-18669.
3	COMPLETE DESIGN VERIFIED FOR COMPLIANCE IN ACCORDANCE TO TEST METHODS SPECIFIED IN SAE J1742: - VOLTAGE DROP, WITH TEMPERATURE MEASURED AT JUNCTIONS. - ISOLATION RESISTANCE.
CC	Critical Characteristics
1	MINIMUM REQUIRED MANUFACTURING TEST: COMPLETE CABLE SHALL UNDERGO AND PASS A - DIELECTRIC WITHSTAND VOLTAGE, BETWEEN WIRE CORE AND SHIELD; (NO ISOLATION BREAKDOWN OR FLASHOVER: APPLIED VOLTAGE ≥3kV DC FOR ≥60 sec.) RECORD LEAKAGE CURRENT. HIGH CURRENT CONDUCTIVITY TEST, REQUIREMENTS: - VOLTAGE DROP MEASURED ON CONNECTED CORES, TERMINALS AND CABLE; (TEST CURRENT ≥100A DC, MAXIMUM VOLTAGE DROP ACROSS LENGTHS ACROSS TOTAL LENGTH FROM TERMINAL U TO V, WITH TERMINALS AT THE END SHORT CIRCUITED IN THE END SHALL NOT EXCEED: 370 mV MEASURED AT TEST CURRENT = 120.0A DC.) RECORD RESULT.

Length tolerances

Nominal length	Tolerances					
	Partial dim.		Total dim.		Positional dim.	
	+	-	+	-		
- 500	15	5	20	0		±10
>500 - 1500	25	5	30	0		±10
>1500 - 4000	30	10	50	0		±15
>4000 - 5000	30	10	100	0		±20
>5000	2%	0.5%	2%	0		±20

General tolerance positioning of cable ties and clips: ±5 mm

A	New harness	GEN-2	20100203	MSV	EFP
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNESS		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A2	Sheet Size	Created 17.09.2008	Change Date	Page 1 of 1
A306		Description		Drawing no	Status
CABLE TRACTION FEED TO PCU		54210080.A			R

Plotted: 16.09.2011 13:35 msv

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
1	Nexans	OG	35.00 mm ²	A13.J5P	1 /1.D71D7	A24.3PH	1 /1.D31D3	486
2	Nexans	OG	35.00 mm ²	A13.J4P	1 /1.D71D7	A24.3PH	2 /1.D31D3	438
3	Nexans	OG	35.00 mm ²	A13.J3P	1 /1.C71C7	A24.3PH	3 /1.D31D3	400
4	R2	WH	1.00 mm ²	A24.2PH	1 /1.C31C3	A24.2PH	2 /1.C31C3	100

- NOTES:
- CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J1654.
 - CABLE DIMENSIONS ACCORDING TO ISO 6722:2006, HALOGEN FREE INSULATION PREFERRED.
 - SHIELD NON-CURRENT CARRYING, FOR EMC AND GROUND PROTECTION ONLY.
 - MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.
 - INSTRUCTIONS FOR THE ASSEMBLY ACCORDING TO PFISTERER'S ASSEMBLY INSTRUCTIONS CC-HVC8-3-SF V0.9.pdf

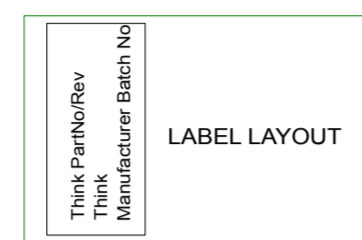
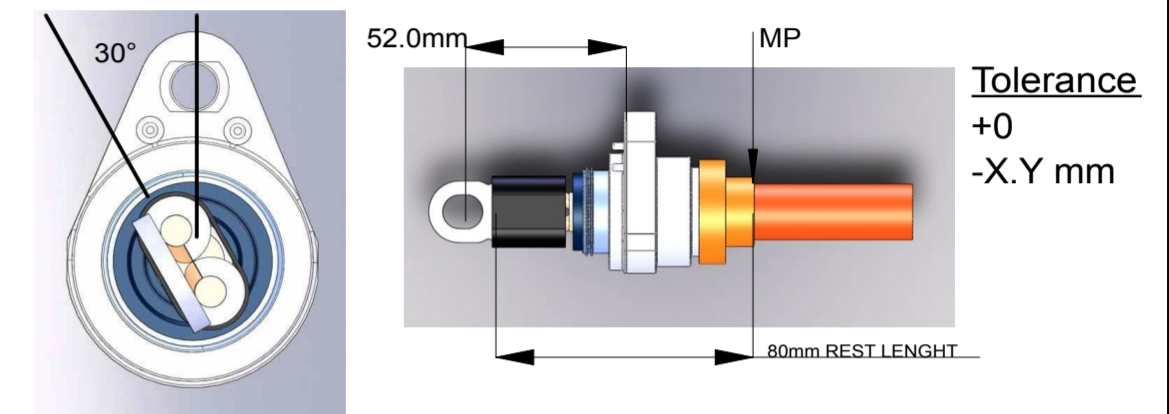


TABLE OF SUBPART FOR PHISTERER 3-PHASE CONNECTOR

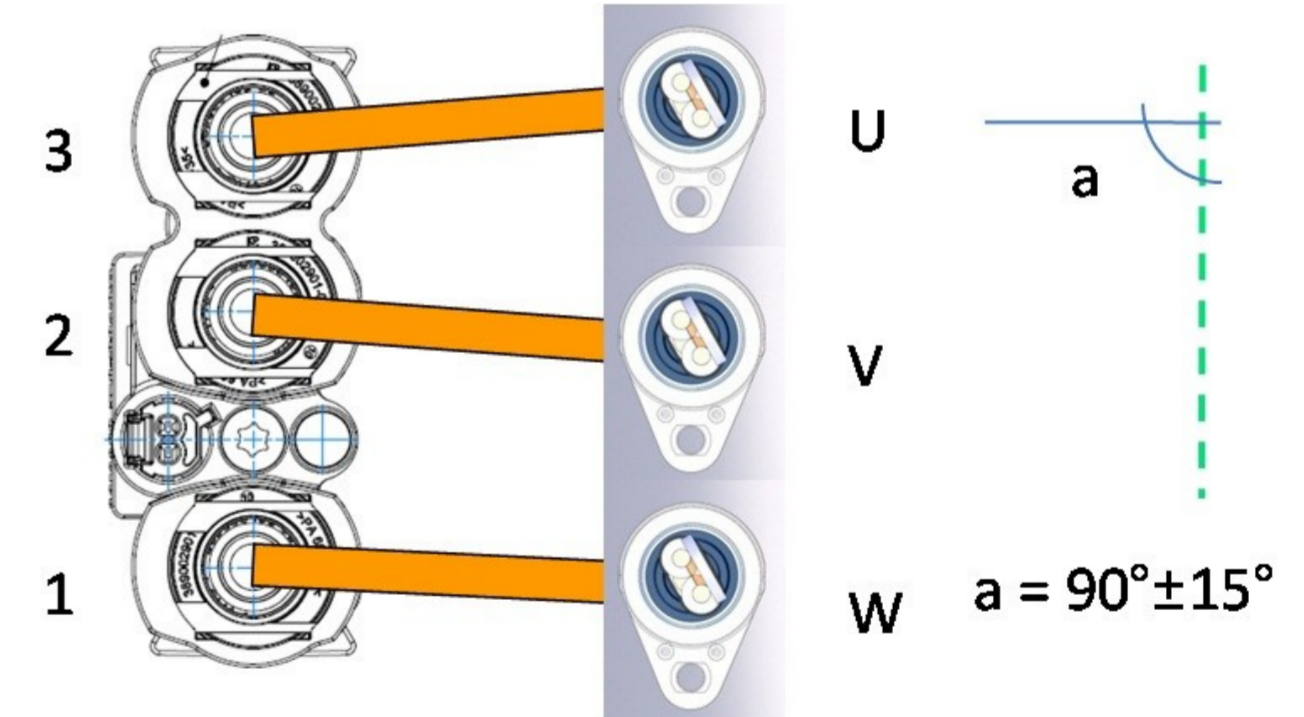
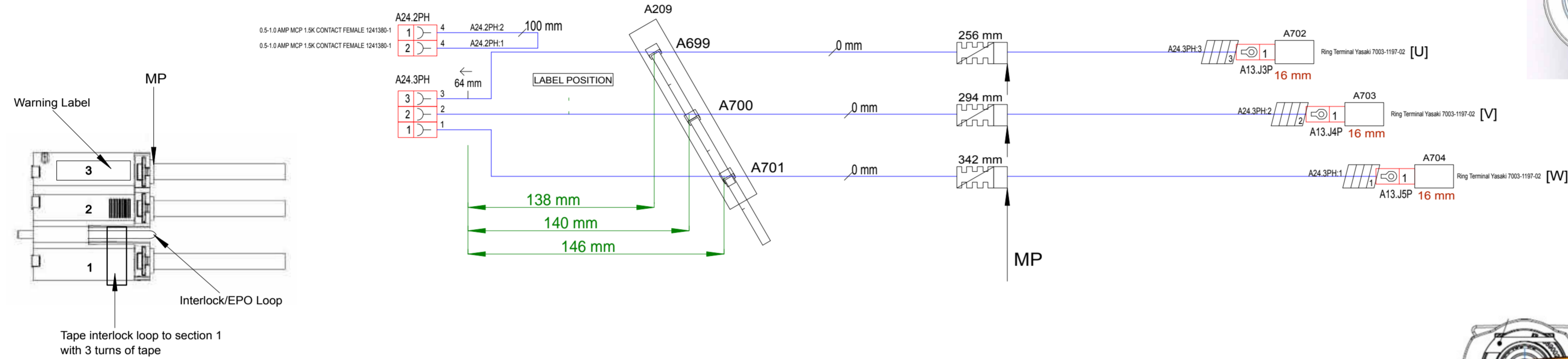
Article Number	Description	Quantity	Material	Surface	Additional Info
389001101	Coding sleeve A with O-Ring	3	PA66 GF	Black/Red	
389001001	HICCON II high current contact, pre assembled	3	Cu	Ag/Cu	
389000801	Half-shell spacer sleeve	6	PA66 GF	Black	
389000601	Support crimp	3	Cu	Sn	
389000701	Shield wire crimp	3	Cu	Ni	
389003101	Shield wire contact	3	Cu	Ni	
389003301	Distance sleeve	3	PA66 GF	Black	
389000401	Lamella sealing cable 35_B	3	Silicone	Black	
389000301	Ending sleeve 35_B pre assembled	3	PA66 GF	Black/Green	O-Ring greased
389000201	Secondary lock, Aluminium housing	3	Stainless Steel	---	
389000101	Housing with sealings, centre screw and label	1	Al	---	Tightening Torque centre screw 9Nm
389000901	Pilot contact adapter CC+O-Ring+Secondary lock	1	PBT GF	Black/Pink/Green	O-Ring greased

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A702,A703,A704	3			CRIMP SLEEVE HF W/GLUE BLACK (very thin)	
A13.J3P,A13.J4P,A13.J5P	3			Ring Terminal Yasaki 7003-1197-02	
A704	892			Tightly Wound Tape	
A209	1	HELLERMAN TYTON	151-24319	MOUNT TYPE MP	
A699,A700,A701	3	HELLERMANN TYTON	111-06206	CABLE TIE T50M UV OUTDOOR	A
A24.3PH	1	PFISTERER	HVC8-35_1-3-180-A-SC-ES	CONNECTOR 3PH FEMALE HV HVC8-35	
A24.2PH	1	PHISTERER		CONNECTOR 2PH FEMALE HV	
A661,A662,A663	3	SCHLEMMER	PA6 17 OR SLI	CORRUGATED TUBE ORANGE Ø 17 SLIT	SCHLEMMER 1926320
A704	892	SCHLEMMER	PA6 17 OR SLI	CORRUGATED TUBE ORANGE Ø 17 SLIT	
A24.2PH	2	TYCO	1-1241380-1	0.5-1.0 AMP MCP 1.5K CONTACT FEMALE 1241380-1	
A24.2PH	2	Tyco	963530-1	0.75 SEAL PLUG MICRO-TIMER II AND MCP 963530-1	
A13.J3P	1	YAZAKI	7335-6310	Yazaki 1POS LETO Code U	
A13.J4P	1	YAZAKI	7335-6311	Yazaki 1POS LETO Code V	
A13.J5P	1	YAZAKI	7335-6312	Yazaki 1POS LETO Code W	

FASTENERS AND COVERS ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND DOCUMENTED PRIOR TO RELEASE.



U	V	W
ELECTRICAL MACHINE "U"	ELECTRICAL MACHINE "V"	ELECTRICAL MACHINE "W"
7335-6310	7335-6311	7335-6312
7L0.972.982.R	7L0.972.982.S	7L0.972.982.T
- 3.9	3.9 -	2.6



SC	Significant Characteristics
1	TERMINAL EYE-LETS (U, V, W) DISTANCE FROM SHIELDBASE TO CENTER OF TERMINAL 52.0 MM (+0.2/-0).
2	PFISTERER HVC8 CONNECTOR CRIMP ACCORDING TO THE LATEST PFISTERER APPLICATION SPECIFICATION.
3	COMPLETE DESIGN VERIFIED FOR COMPLIANCE IN ACCORDANCE TO TEST METHODS SPECIFIED IN SAE J1742: SPECIAL ATTENTION ON THE YAZAKI END CONNECTORS WHILE PFISTERER TERMINALS ARE INTRODUCED IN THE ASSEMBLY. YAZAKI END CONNECTORS MUST NOT MOVE APART. - VOLTAGE DROP, WITH TEMPERATURE MEASURED AT JUNCTIONS. - ISOLATIONS RESISTANCE - DIELECTRIC WITHSTAND VOLTAGE
CC	Critical Characteristics
1	MINIMUM REQUIRED MANUFACTURING TEST: COMPLETE CABLE SHALL UNDERGO AND PASS A - DIELECTRIC WITHSTAND VOLTAGE, BETWEEN WIRE CORE AND SHIELD; (NO ISOLATION BREAKDOWN OR FLASH-OVER: APPLIED VOLTAGE ≥2.5kV DC FOR ≥60 sec.) RECORD LEAKAGE CURRENT. HIGH CURRENT CONDUCTIVITY TEST, REQUIREMENTS: - VOLTAGE DROP MEASURED ON CONNECTED CORES, TERMINALS AND CABLE; (TEST CURRENT ≥100A DC, MAXIMUM VOLTAGE DROP ACROSS SINGLE LENGTH SHALL NOT EXCEED: 110 mV. MEASURED WITH TEST CURRENT = 120.0A DC.) RECORD RESULT.

Length tolerances

Nominal length	Tolerances					
	Partial dim.		Total dim.		Positional dim.	
	+	-	+	-		
- 500	15	5	20	0		±10
>500 - 1500	25	5	30	0		±10
>1500 - 4000	30	10	50	0		±15
>4000 - 5000	30	10	100	0		±20
>5000	2%	0,5%	2%	0		±20

General tolerance positioning of cable ties and clips: ±5 mm

Rev.	Description	Change Req.	Date	Prepared	Approved
A	CP release		GEN-2 20100219	MSV	EFP

HARNESS		Document type	
MSV		Prepared by	
A306 MY2011 Pre-series		File name	
Approved by	A2	Sheet Size	Created 16/11/2009 Change Date
A306		Description	Page 1 of 1
CABLE MOTOR POWER 3PH SHIELD		Drawing no	Status
542.3050.A		DRAFT	

Plotted: 16.05.2011 13:35 msv

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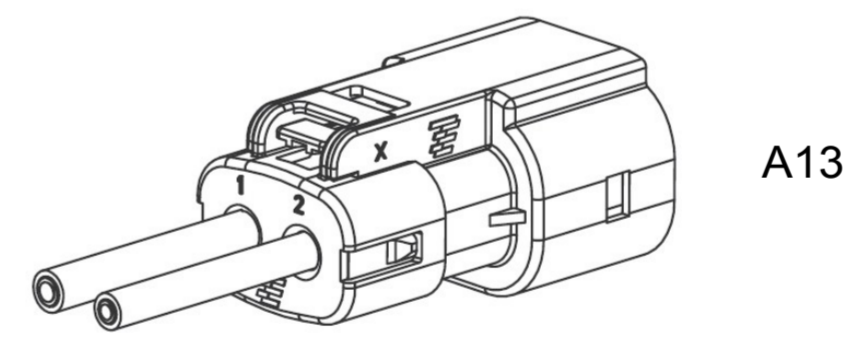
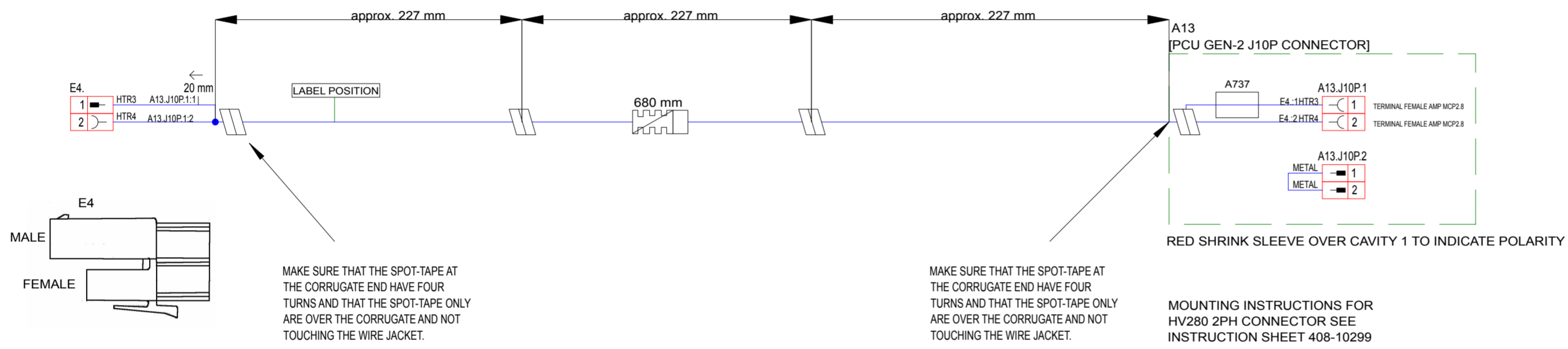
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
METAL	INTERLOCK	BARE		A13.J10P2	2 /1.D7	A13.J10P2	1 /1.D7	0
HTR3	R2	OG	4.00 mm ²	E4.	1 /1.D2	A13.J10P.1	1 /1.D7	700
HTR4	R2	OG	4.00 mm ²	E4.	2 /1.D2	A13.J10P.1	2 /1.D7	700

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
E4.	1	FCI	60070271	9.5 DCS-1 FEMALE	
E4.	1	FCI	60170271	9.5 DCS-1 MALE	
E4.	1	FCI	DCSHHPE02BKSV	CONNECTOR 2PIN FEMALE /MALE BLACK DCSHHPE02BKSV	
	0	NITTON		ORANGE PVC TAPE	
A737	1	Raychem	RNF-3000-12/4-2-SP	SHRINK SLEEVE 12/04 WO GLUE RED	A
A738	1	SCHLEMMER	1227312	CORRUGATED TUBE NW12 SLIT ORANGE	
A13.J10P.1	2	TYCO	1-968859-1	TERMINAL FEMALE AMP MCP2.8	
A13.J10P.2	1	TYCO	HVA280 (KEY A) 1587819-1	HIGH VOLTAGE HOUSING 2PIN	
A13.J10P.1	1	TYCO	HVA280 (KEY A) 1587819-1	HIGH VOLTAGE HOUSING 2PIN 2PH	

CRIMP SLEEVES ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND

A REWORK THAT WAS NOT USED!!!

Think PartNoRev
Think
Manufacturer Batch No
LABEL LAYOUT



SUBPARTS SIZE C OR SIZE D ACCORDING OUTER JACKET AND TO CUSTOMER DRAWING SUITABLE FOR 4mm² SHIELDED WIRES

(Fluid Heater)

B	New Harness	GEN-2	20100511	MSV	-
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNES		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A2	Sheet Size	Created	Change Date	Page 1 of 1
A306		Description		Drawing no	
ADAPTER HARNESS FLUID HEATER		52.3060.A		DRAFT	

Plotted: 16.05.2011 13:35 msv

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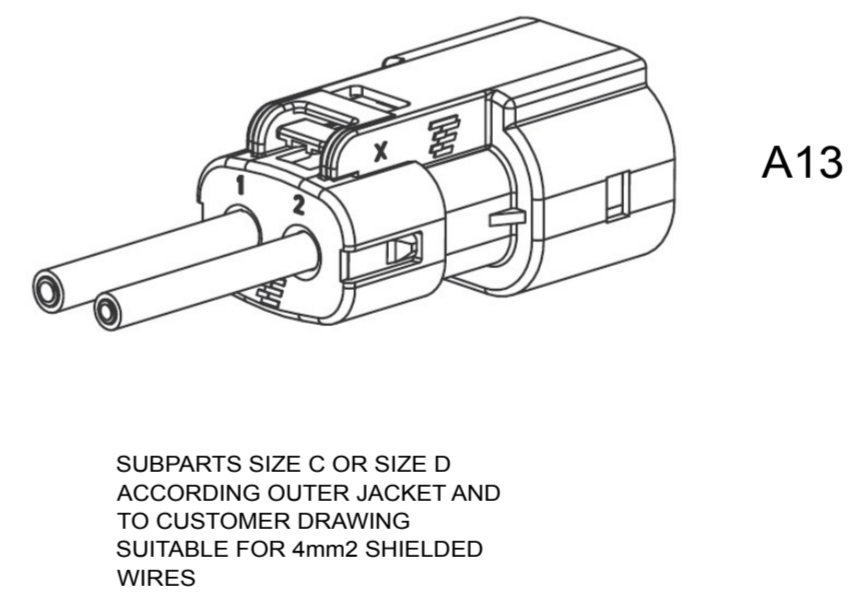
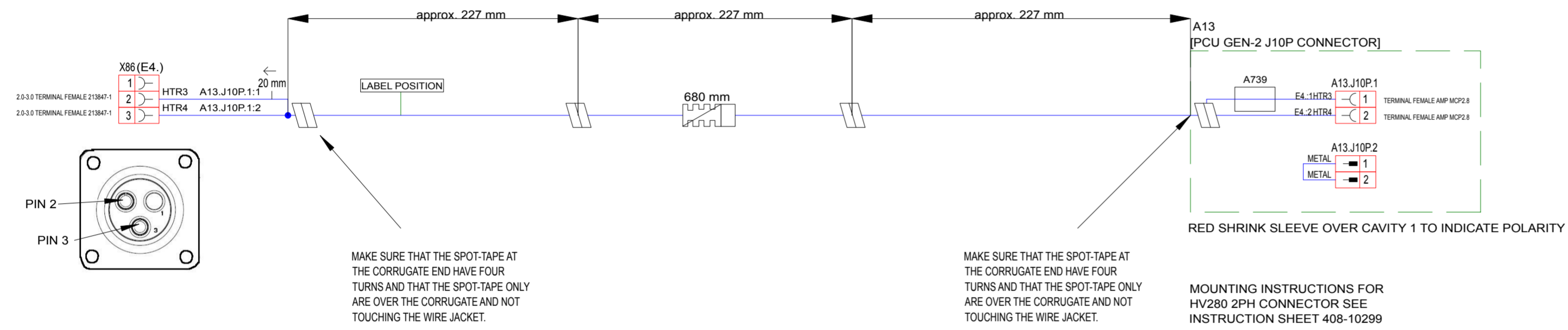
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
METAL	INTERLOCK	BARE		A13.J10P.2	2 /1.D7	A13.J10P.2	1 /1.D7	0
HTR3	R2	OG	4.00 mm ²	X86 (E4.)	2 /1.D2	A13.J10P.1	1 /1.D7	700
HTR4	R2	OG	4.00 mm ²	X86 (E4.)	3 /1.D2	A13.J10P.1	2 /1.D7	700

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
	0	NITTON		ORANGE PVC TAPE	
A739	1	Raychem	RNF-3000-12/4-2-SP	SHRINK SLEEVE 12/04 WO GLUE RED	
A740	1	SCHLEMMER	1227312	CORRUGATED TUBE NW12 SLIT ORANGE	
A13.J10P.1	2	TYCO	1-968859-1	TERMINAL FEMALE AMP MCP2.8	
X86 (E4.)	2	TYCO	213847-1	2.0-3.0 TERMINAL FEMALE 213847-1 Ag PLT 125 PWRBND	
X86 (E4.)	1	TYCO	788189-1	CONNECTOR 3PIN FEMALE 788189-1	
A13.J10P.2	1	TYCO	HVA280 (KEY A) 1587819-1	HIGH VOLTAGE HOUSING 2PIN	
A13.J10P.1	1	TYCO	HVA280 (KEY A) 1587819-1	HIGH VOLTAGE HOUSING 2PIN 2PH	

CRIMP SLEEVES ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND

A REWORK THAT WAS NOT USED!!!

Think PartNoRev
Think
Manufacturer Batch No
LABEL LAYOUT



(Fluid Heater)

B	New Harness	GEN-2	20100518	MSV	-
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNES		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by	A2	Sheet Size	Created 18/05/2010	Change Date	Page 1 of 1
A306		Description		Drawing no	
ADAPTER HARNESS FLUID HEATER		52300 PA		DRAFT	

Plotted: 16.05.2011 13:35 msv

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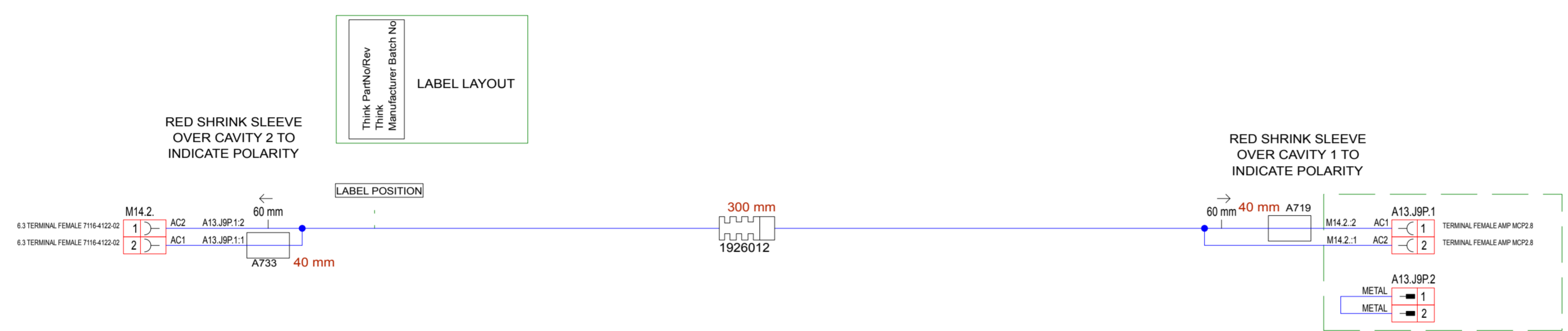
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Lenght (mm) (Cu)	
AC1	R2	OG	3.00 mm ²	M14.2	2	/1.D2	A13.J9P.1	1 /1.D8	420
AC2	R2	OG	3.00 mm ²	M14.2	1	/1.D2	A13.J9P.1	2 /1.D8	420
METAL	INTERLOCK	BARE		A13.J9P.2	1 /1.E8	A13.J9P.2	2 /1.E8	0	

A The interlock is integrated in the connector

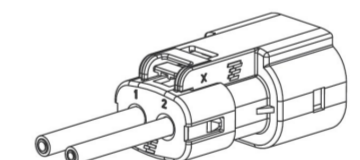
Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A719,A733	2	Raychem	RNF-3000-12/4-2-SP	SHRINK SLEEVE 12/04 WO GLUE RED	
A736	300	SCHLEMMER	1926012	CORRUGATED TUBE NW12 UNSLIT ORANGE	
A13.J9P.1	2	TYCO	1-968859-1	TERMINAL FEMALE AMP MCP2.8	
A13.J9P.1	1	TYCO	HVA280 (KEY A) 1587902-1	HIGH VOLTAGE HOUSING 2PIN 2PH	
M14.2	2	YAZAKI	7116-4122-02	6.3 TERMINAL FEMALE 1116-4122-02	
M14.2.	1	YAZAKI	7125-8351-02	SHIELD TERMINAL YAZAKI 7125-8351-02	A
M14.2.	1	YAZAKI	7158-3721-90	SWS YAZAKI 7158-3721-90	
M14.2.	1	YAZAKI	7172-0271-51	REAR HOLDER YAZAKI 7172-0271-51	
M14.2.	1	YAZAKI	7173-0057	SHIELD PIPE YAZAKI 7173-0057	
M14.2.	1	YAZAKI	7225-8338-51	HOUSING 2PIN ASSY	

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A13.J9P.1	1	TYCO	1587827	CABLE SEAL RETAINER	
A13.J9P.1	1	TYCO	1587826	CABLE SEAL	
A13.J9P.1	2	TYCO	1587828	INNER FERRULE	
A13.J9P.1	2	TYCO	1587829	OUTER FERRULE	
A13.J9P.1	1	TYCO	1587819	2 PIN PLUG CONNECTOR ASSY	

CRIMP SLEEVES ARE GENERALLY THE BASE FOR SPECIFICATION IN THE THINK DRAWING. OTHER MAKES MAY BE SELECTED IF PROPERTIES FROM SPECIFIED PRODUCT IS KEPT AND



MOUNTING INSTRUCTIONS FOR HV280 2PH CONNECTOR SEE INSTRUCTION SHEET 408-10299



A13

SUBPARTS SIZE C ACCORDING TO CUSTOMER DRAWING SUITABLE FOR 3mm² SHIELDED WIRES

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

(A/C High Voltage)

B	New Harness	-	20100525	MSV	PBA
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNESS		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by		A2	Sheet Size	Created	20100422
A306		Description		Change Date	Page 1 of 1
JUMPER HV A/C COMPRESSOR		Drawing no		542.3070.A	Status
					R

Plotted: 16.05.2011 13:35 msv

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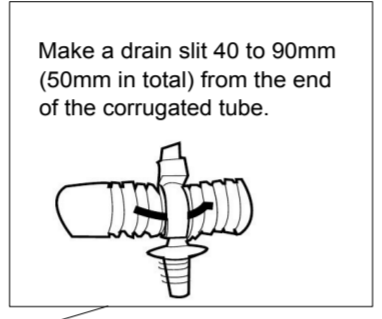
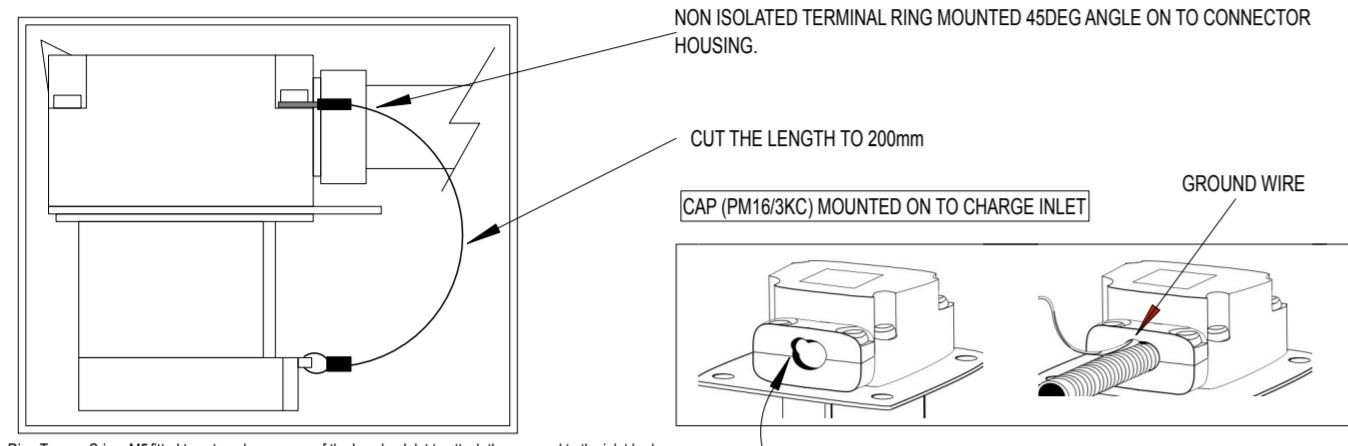
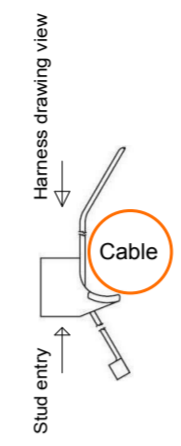
Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)		
1	RADOX 125 HALOGEN-FREE	BK	2.50 mm ²	A40	L1	/1.C21C2	A13.J7P.1	1	/1.D81D9	2000
2	RADOX 125 HALOGEN-FREE	BU	2.50 mm ²	A40	N	/1.C21C2	A13.J7P.1	10	/1.D81D9	2000
3	RADOX 125 HALOGEN-FREE	GNVE	2.50 mm ²	A40	PE	/1.C21C2	A13.J7P.1	15	/1.E91E9	1990
4	RADOX 125 HALOGEN-FREE	GNVE	2.50 mm ²	A40	PE	/1.C21C2	X85.1.1	1	/1.D41D4	310
5	RADOX 125 HALOGEN-FREE	WH	0.50 mm ²	A40	P	/1.D21D2	A13.J7P.1	14	/1.E91E9	2000
6	RADOX 125 HALOGEN-FREE	RD	0.50 mm ²	A40	R1	/1.C21C2	A13.J7P.1	11	/1.D81D9	2000
7	RADOX 125 HALOGEN-FREE	GN	0.50 mm ²	A40	PE	/1.C21C2	A40	R2	/1.C21C2	60
9	RADOX 125 HALOGEN-FREE	BK	1.50 mm ²	A13.J7P.1	2	/1.D91D9	A4.X1	4	/1.E21E2	2300
10	RADOX 125 HALOGEN-FREE	BU	1.50 mm ²	A13.J7P.1	16	/1.E91E9	A4.X1	2	/1.E21E2	2300
11	RADOX 125 HALOGEN-FREE	GNVE	1.50 mm ²	A4.X1	GND	/1.E21E2	A13.J7P.1	7	/1.D81D9	2300

NOTE:
 1. CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J1654.
 2. CABLE HALOGEN FREE WITH ISOLATION.
 3. MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.

Label Layout

Think PartNo
Think
Manufacturer Part No

Label Material:
Label Adhesive:

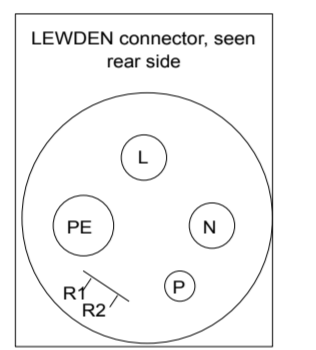
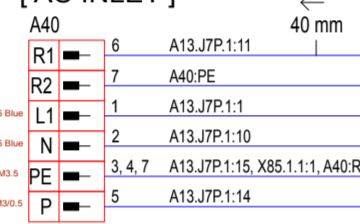


Erma Ring Tongue Crimp M5 fitted to external rear cover of the Lewden Inlet to attach the cap cord to the inlet body

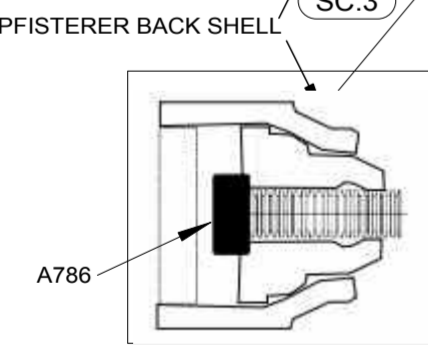
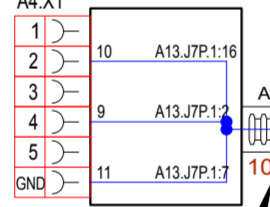
2 mm Ø manually filed hole in the location as shown on the detail

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A85	1	Anixter Components	33488355	Grommet GET14-20	
A40	1	Brookdale Fasteners		Ring Crimp Connector Un-insulated M30.5mmsq. AWS 1.5/3mm	
14	1	Davies Industrial Supplies	AT87	P.I.B Self Amalgamating 19x0.5mm Black	
A40	1	Erma		Erma Ring Tongue Crimp M5 Type WS2-M5	
C291	1	HELLERMANN TYTON	150-10144	CLIPS T50SSB5-MC2-BK-R1	
C110,C120,C83,C86,C89,C90	6	HELLERMANN TYTON	T50RSBS5.N66-BK	WELD STUDD FIXING TIE BLACK	
C433,C434,C435	3	HELLERMANN TYTON	T50R-F17	CLIPS T50R-F17 Black	
A40	1	Japanese Solderless Terminals		Ring Crimp Connector Type 2-M3 or Centre Type 2.5-M3.5/1	
X85.1.1	1	Japanese Solderless Terminals		JST Ring Tongue Crimp M6-2.5 Type 2-6	
X85.1.1	1	Japanese Solderless Terminals		JST Ring Tongue Crimp M6-2.5 Type 2-6	
A40	1	LEWDEN	LEV 499	CHARGE INLET LEWDEN	
A40	1	LEWDEN	PM16/3KC	CAP PUSH FIT PM16/3KC	
A4.X1	1	PFISTERER	350 208-001	Connector	
A798	1	Printasleeve		Printasleeve Green/Yellow Heat Shrink	
A40	2	RS Components	267-3789	Ring Crimp M3.5 Blue	
A786	1	Raychem	Rayfast ATUM - 12/4.0	Raychem ATUM 12/4.0 Black Heat Shrink	
A790	1	Raychem	Rayfast ATUM - 19/6.0	Raychem ATUM 19/6.0 Black Heat Shrink	
	1715	SCHLEMMER	1227008	CORRUGATED TUBE ORANGE Ø 11.7/8.4 UNSLIT	
	1775	SCHLEMMER	1227012	CORRUGATED TUBE 15.7/12.2 UNSLIT ORANGE	
C133	1	SCHLEMMER	7807288	REDUCER NW10-8.5 7807288	
C133	1	SCHLEMMER	9806104	T-PIECE NW13-13-10 9806104	
A13.J7P.1	1	TYCO	1-206138-0	CABLE CLAMP SIZE23 CPC 1-206138-0	
A13.J7P.1	4	TYCO	2-66358-1	Ø 8-2.0 TERMINAL FEMALE 2-66358-1 ENHANCED HIGH CUR	
A13.J7P.1	4	TYCO	213847-1	2.0-3.0 TERMINAL FEMALE 213847-1 Ag PLT 125 PWRBND	
A13.J7P.1	1	TYCO	796203-1	CONNECTOR 16PIN FEMALE 796203-1	

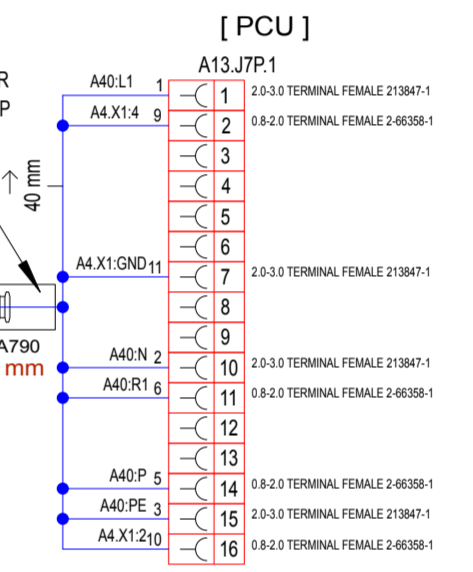
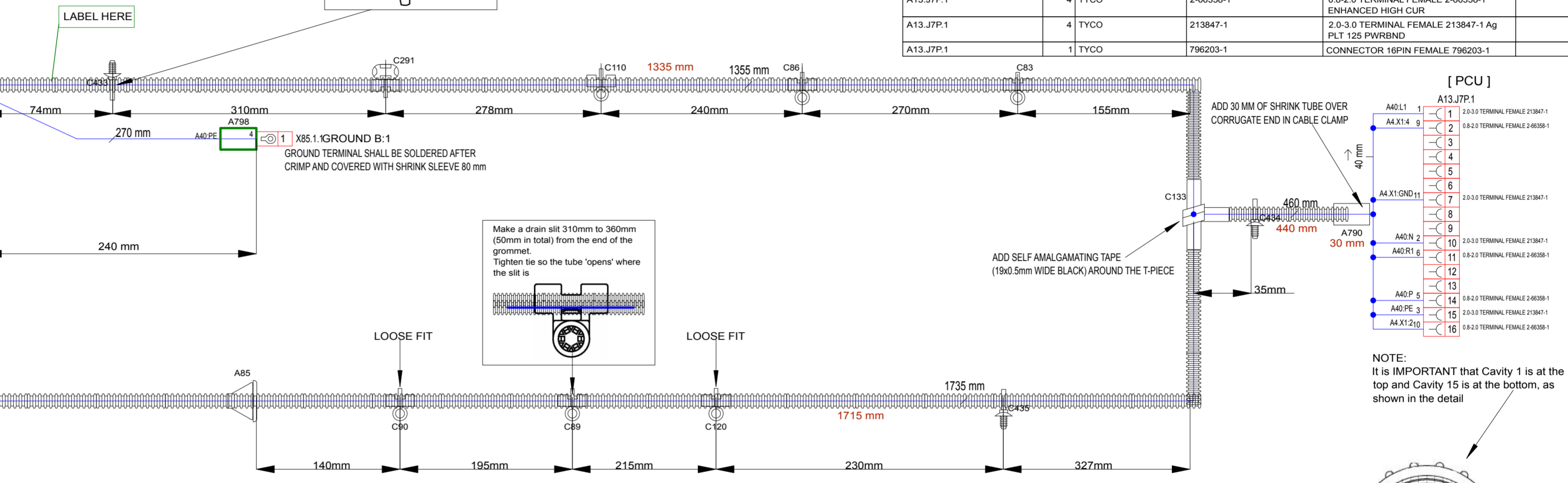
SC:2
[AC INLET]



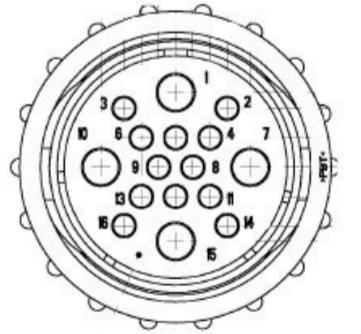
[BMI, AC Heater]



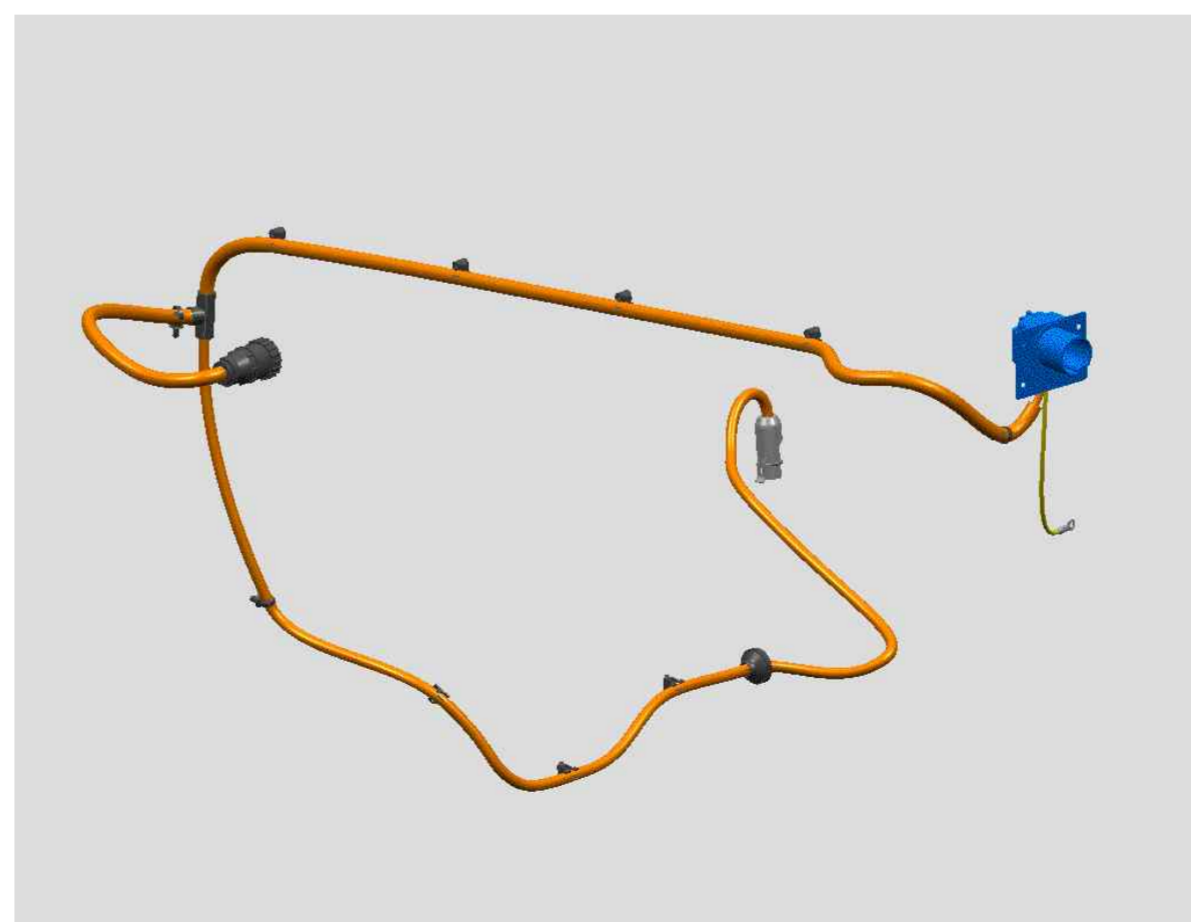
Pfisterer connector 350-208-007 includes the following sub parts:
 2x outer shell plastic moulding
 2x inner plastic moulding contact holder
 1x rear grommet
 3x female contacts
 1x o ring seal
 1x black plastic ring



NOTE:
It is IMPORTANT that Cavity 1 is at the top and Cavity 15 is at the bottom, as shown in the detail



SC	Significant Characteristics
1	THERE IS AN OVERLENGTH OF 20mm PER METER ON THE WIRES TO PROTECT THE WIRES FROM PULL FORCE. MAKE SURE THAT THE CORRUGATED TUBE IS PROPERLY SECURED IN EACH END WITH A CRIMP SLEEVE.
2	ALL RIVETED EYE TERMINALS MUST BE INSPECTED AND FIXED. TYPE OF RING TERMINALS: "L" AND "N" - INSULATED "PE" - UNINSULATED "P" UNINSULATED WITH BLACK SHRINK SLEEVE
3	MAKE SURE THAT THE PFISTERER BACK SHELL COVERS THE CORRUGAL. PUT A 10mm CRIMP SLEEVE 24/8 WITH GLUE ON THE CORRUGATED TUBE END AS A STRENGTH RELIEF INSIDE THE BACK SHELL.
4	ARALDITE 2045 GLUE 50mm FROM THE BACK OF CONNECTOR INSIDE CORRUGATED TUBE
CC	Critical Characteristics
1	REED SWITCHES ARE TO BE TESTED TO ENSURE THEY ARE OPEN. CONDITION AND CLOSING FUNCTION ACCORDING TO MAGNETS IN MATING CONNECTOR.
2	HV ISOLATION TEST TO BE PERFORMED AFTER FULL ASSEMBLY. COMMON MODE BETWEEN L1+N TOWARDS PE+PD+CP. REQUIREMENT: NO FLASH OVER (OR SIGN OF ISOLATION BREACH) WHEN APPLYING 1500V AC FOR 1 MINUTE.



Length tolerances

Nominal length	Tolerances			Positional dim.
	Partial dim.	Total dim.		
- 500	15	5	20	±10
>500 - 1500	25	5	30	±10
>1500 - 4000	30	10	50	±15
>4000 - 5000	30	10	100	±20
>5000	2%	0.5%	2%	±20

General tolerance positioning of cable ties and clips: ±5 mm

Revision	Task Number	Description	Date	Change Req	Prepared	Approved
C	T001	Added 50mm slit on corrugated tube, clip C89	02022011	N/A	JJF	PBA
	T002	Added 50mm slit on corrugated tube, clip C433				
	T003	Added Araldite 2045 Glue & SC-4				
	T004	Added self amalgamating tape to T-PIECE				
	T005	Added 3D detail and note updates				
	T006	Deleted red spot tape around to terminal X.85				
	T007	Updated SC & CC				
B	N/A	Changed corrugated tube from grey to orange	20100603	GEN-2	MSV	PBA
A	N/A	Changed lengths between clips, one clip moved	20100302	GEN-2	MSV	EFP

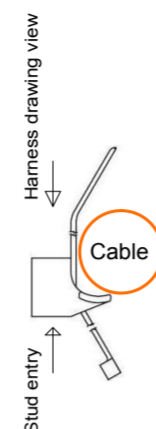
HARNES		Document type		
MSV		Prepared by	THINK	
A306 MY2011 Pre-series		File name		
Approved by	A2	Sheet Size	Created	20100122
A306		Description	Change Date	Page 1 of 1
MAINS INLET ASSY 1PH 309 W/AUX AC		Drawing no	452.3080.C	Status
				DRAFT

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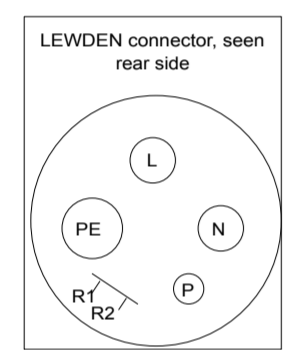
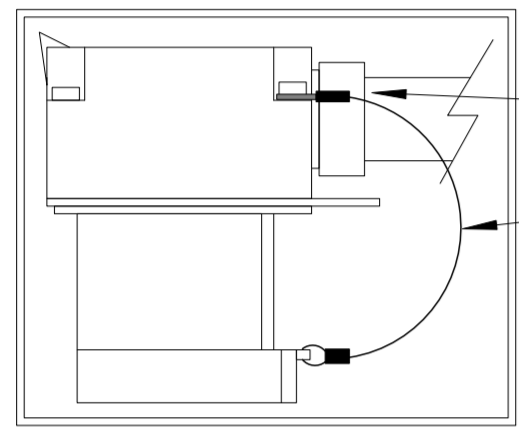
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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
1	RADOX 125 HALOGEN-FREE	BK	2.50 mm ²	A40	L1 /1.D1	A13.J7P	1 /1.D9	1895
2	RADOX 125 HALOGEN-FREE	BU	2.50 mm ²	A40	N /1.D1	A13.J7P	10 /1.D9	1895
3	RADOX 125 HALOGEN-FREE	GNYE	2.50 mm ²	A40	PE /1.D1	A13.J7P	15 /1.E9	1895
4	RADOX 125 HALOGEN-FREE	GNYE	2.50 mm ²	A40	PE /1.D1	X85	1 /1.E3	280
5	RADOX 125 HALOGEN-FREE	WH	0.50 mm ²	A40	P /1.D1	A13.J7P	14 /1.E9	1895
6	RADOX 125 HALOGEN-FREE	RD	0.50 mm ²	A40	R1 /1.D1	A13.J7P	11 /1.D9	1895
7	RADOX 125 HALOGEN-FREE	GN	0.50 mm ²	A40	PE /1.D1	A40	R2 /1.D1	80

- NOTE:
- CABLE QUALITY ACCORDING TO ISO 6722:2006 AND/OR SAE J1654.
 - CABLE DIMENSIONS ACCORDING TO ISO 6722:2006, HALOGEN FREE INSULATION PREFERRED.
 - SHIELD NON-CURRENT CARRYING, FOR EMC AND GROUND PROTECTION ONLY.
 - MATERIALS USED IN THIS ASSEMBLY SHALL BE IN CONFORMITY WITH EU ELV 2000/53/EC DIRECTIVE.
 - CONNECTOR A4.X1 IS SPECIFIED WITH ASSEMBLY PART NUMBER. LOOSE PIECE SUB ITEM IS AVAILABLE FROM PFISTERER.

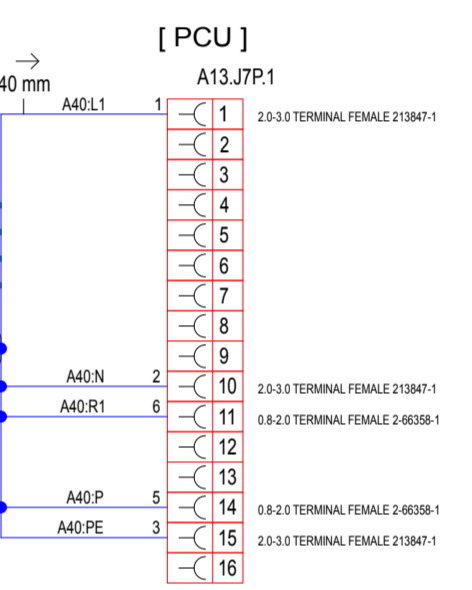
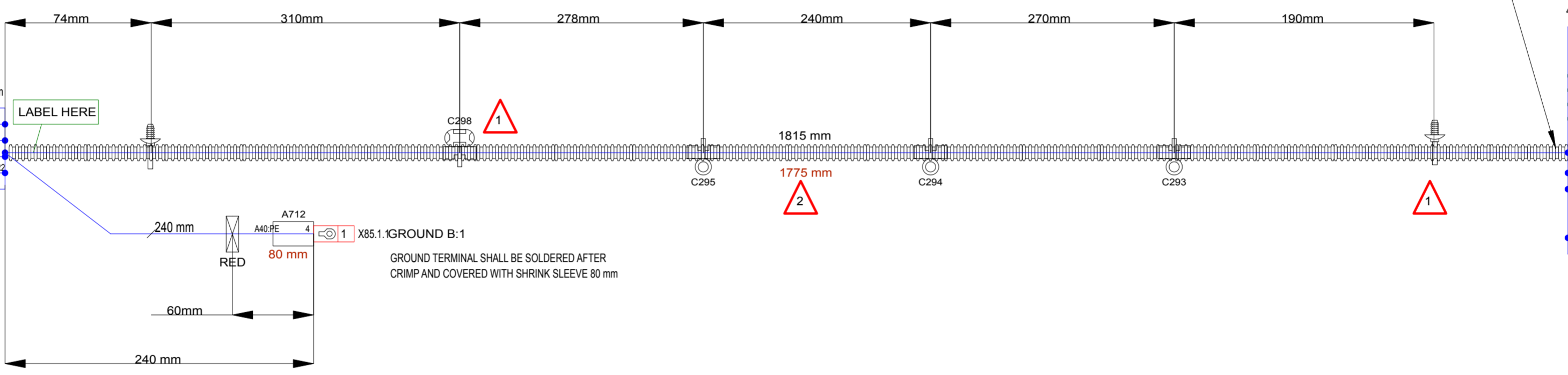
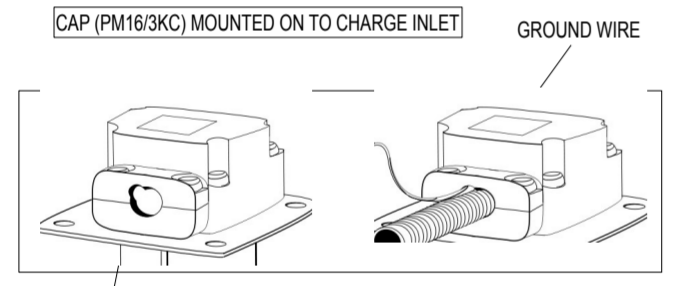


Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
A13.J7P	4			0.8-2.0 TERMINAL FEMALE 2-66358-1 ENHANCED HIGH CUR	
A13.J7P	4			2.0-3.0 TERMINAL FEMALE 213847-1 Ag PLT 125 PWRBND	
X85	1	G&HARTMAN	970794	RING TERMINAL M6 2.6-6.0	
C292,C297	2	HELLERMANN	T50R-FT7 BLACK	CLIPS T50R-FT7 BLACK	A
C298	1	HELLERMANN TYTON	150-10144	CLIPS T50SSB5-MC2-BK-R1	
C293,C294,C295	3	HELLERMANN TYTON	T50RSBS5.N66-BK	WELD STUD FIXING TIE BLACK	
A40	1	LEWDEN	LEV 499	CHARGE INLET LEWDEN	
A40	1	LEWDEN	PM16/3KC	CAP PUSH FIT PM16/3KC	
A712	1	Raychem		Crimp Sleeve ATUM 9/3 BLACK w/o glue	
	1775	SCHLEMMER	1227012	CORRUGATED TUBE 15.7/12.2 UNSLIT ORANGE	
A13.J7P	1	TYCO	1-206138-0	CABLE CLAMP SIZE23 CPC 1-206138-0	
A13.J7P	1	TYCO	796203-1	CONNECTOR 16PIN FEMALE 796203-1	



SC:2
[AC INLET]

A40	6	A13.J7P:1:11
R1	7	A40:PE
R2	1	A13.J7P:1:1
L1	2	A13.J7P:1:10
N	3,4,7	A13.J7P:1:15, X85.1:1-1, A40:R2
PE	5	A13.J7P:1:14
P		



ADD 40 MM OF SHRINK TUBE OVER CORRUGATE SLEEVE IN CABLE CLAMP

- 1 (Turned the clips 180 degrees)
- 2 (Changed the colour on the corrugated tube from grey to orange. Removed the ORANGE shrink/tape spots.)

Length tolerances

Nominal length	Tolerances				
	Partial dim.		Total dim.		Positional dim.
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

SC	Significant Characteristics
1	THERE ARE AN OVERLENGHT OF 20mm ON THE WIRES TO PROTECT THE WIRES FROM PULL FORCE. MAKE SURE THAT THE CORRUGAL IS PROPERLY SECURED IN EACH END
2	ALL RIVETED EYE TERMINALS MUST BE INSPECTED AND FIXED. TYPE OF RING TERMINALS: "L" AND "N" - INSULATED "PE" - UNINSULATED "P" UNINSULATED WITH BLACK SJHRINK SLEEVE
CC	Critical Characteristics
1	REED SWITCES ARE TO BE TESTED FOR NORMALLY OPEN. CONDITION AND CLOSING FUNCTION ACCORDING TO MAGNETS IN MATING CONNECTOR.

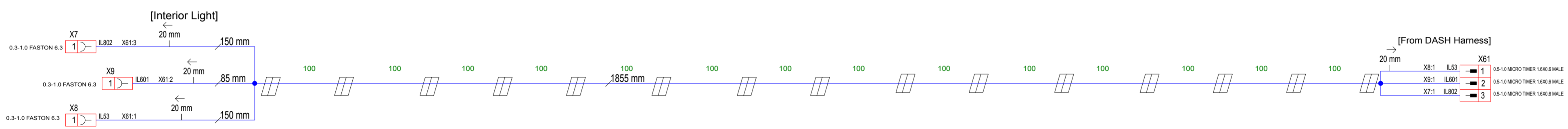
B	Change the Corrated tube from Grey to Orange	GEN-2	20100603	MSV	PBA
A	New harness	GEN-2	20100302	MSV	EFP
HARNES		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by A2		Sheet Size		Created 20100122	Change Date
A306		Description		Page 1 of 1	Status
MAINS INLET ASSY 1PH 309 WO/AUX AC		Drawing no		542.3090.B	
				R	

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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Length (mm) (Cu)
IL53	R2	BUWH	0.75 mm ²	X61	1 /1.D9	X8	1 /1.E1	2045
IL601	R2	RD	0.75 mm ²	X61	2 /1.E9	X9	1 /1.E1	1980
IL802	R2	BK	0.75 mm ²	X61	3 /1.E9	X7	1 /1.D1	2045

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
X7,X8,X9	3	TYCO	1544132-2	0.3-1.0 TERMINAL FEMALE FASTON 6.3	
C337,C338,C339,C340,C341,C342,C343,C344,C345,C346,C347,C348,C349,C350,C351	15	Tesa	51608-09-15	Clothtape Wound Twice	
X61	1	Tyco	1-962342-1	HOUSING 3 PIN MICRO TIMER	4113064
X7,X8,X9	3	Tyco	1544408-1	INSULATION SLEEVE FASTON 6.3	
X61	3	Tyco	963900-1	0.5-1.0 MICRO TIMER 1.6X0.6 MALE	



Length tolerances

Nominal length	Tolerances				Positional dim.
	Partial dim.		Total dim.		
	+	-	+	-	
- 500	15	5	20	0	±10
>500 - 1500	25	5	30	0	±10
>1500 - 4000	30	10	50	0	±15
>4000 - 5000	30	10	100	0	±20
>5000	2%	0,5%	2%	0	±20

General tolerance positioning of cable ties and clips: ±5 mm

ALL CABLES SHOULD MARKED WITH PART NUMBER

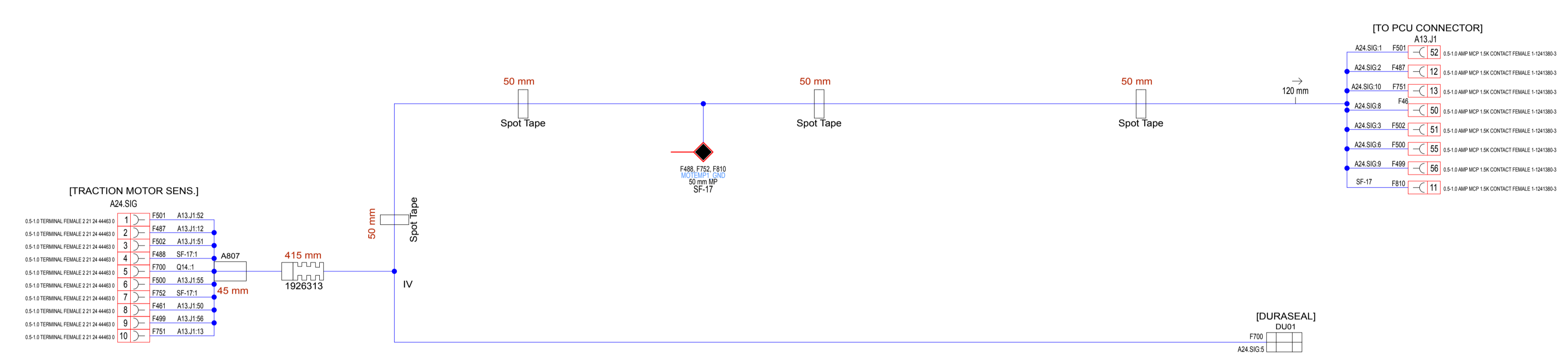
D	Removed clips, added length	-	20100415	MSV	PBA
C	NEW LENGTH, NEW COLORS & NEW NET	-	13.11.2007	PBR	EFP
B	CHANGES ACC. TO MEETING 070522	-	070523	MN	MA
A	DRAWING ADDED	-	020528	LL	IA
Rev.	Description	Change Req.	Date	Prepared	Approved
HARNES		Document type			
MSV		Prepared by			
A306 MY2011 Pre-series		File name			
Approved by A2		Sheet Size		Created 20100316	Change Date
A306		Description		Drawing no	Status
INTERIOR LIGHT- BASE HARNESS		578.6101.D		R	

Plotted: 16.05.2011 13:35 msy

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Part No.	Qty	Manufacturer	Part Number	Description	Alternative			
F451	R2	BN	1.00 mm ²	A24.SIG	8	A13.J1	50	745
F487	R2	GY	0.50 mm ²	A13.J1	12	A24.SIG	2	745
F488	R2	BKWH	0.50 mm ²	SF-17	1	A24.SIG	4	575
F499	FLRT3.ZHXL	BN	0.50 mm ²	A13.J1	56	A24.SIG	9	745
F500	FLRT3.ZHXL	DKGN	0.50 mm ²	A13.J1	55	A24.SIG	6	745
F501	FLRT3.ZHXL	YE	0.50 mm ²	A13.J1	52	A24.SIG	1	745
F502	FLRT3.ZHXL	WH	0.50 mm ²	A13.J1	51	A24.SIG	3	745
F700	R2	BU	1.00 mm ²	A24.SIG	5	O14	1	
F751	R2	WH	0.50 mm ²	A13.J1	13	A24.SIG	10	745
F752	R2	BKWH	0.50 mm ²	A24.SIG	7	SF-17	1	575
F810	R2	BKWH	0.50 mm ²	SF-17	1	A13.J1	11	170

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
SF-17	1			GENERAL SPLICE	
A24.SIG	10			SWS 0.5-1.0mm 1080044522	
	200			Spot Tape	
A807	1	HELLERMANTYTON	318-32400	CRIMP SLEEVE HELLERMANTYTON 20/8 W	
A24.SIG	1	KOSTAL	09 4310 91	CONNECTOR KOSTAL 10 PIN FEMALE	
A24.SIG	10	KOSTAL	2 21 24 44463 0	0.5-1.0 TERMINAL FEMALE 2 21 24 44463 0	
	415	SCHLEMMER		CORRUGATED TUBE NW13 UNSLIT BLACK	
A13.J1	8	TYCO	1-1241380-3	0.5-1.0 AMP MCP 1.8K CONTACT FEMALE 1-1241380-3	
A13.J1	1	TYCO	1418882-1	COVER FOR TYCO 62 PIN 1418882-1	
A13.J1	8	TYCO	963530-1	SWS ID1.4-1.9 MCTB 963530-1	
A13.J1	1	TYCO	1-1418883-1	CONNECTOR TYCO 62 PIN MALE	
DU01	1	TYCO		DURASEAL SPLICE	



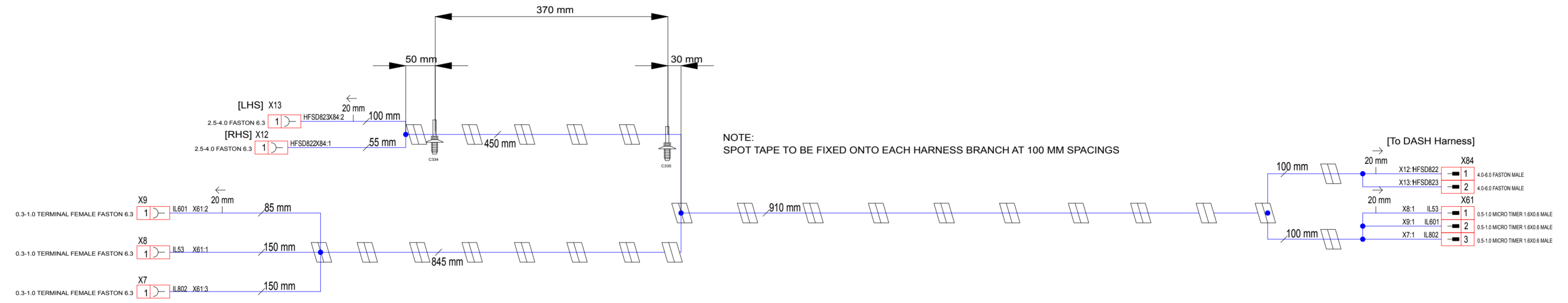
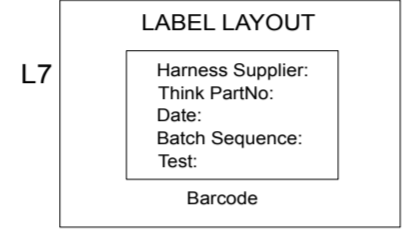
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JJF		Prepared by	
A306 MY2011 Pre-series		File name	
Approved by	A1	Sheet Size	Created
A306		Description	28.03.2011
		Drawing no	Change Date
		KIT	
		Status	Page
		DRAFT	1



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Wire Id	Type	Colour	Size	From	Loc.	To	Loc.	Lenght (mm) (Cu)
IL53	R2	BUVWH	0.75 mm ²	X61	1 /1.E8	X8	1 /1.E2	2045
IL601	R2	RD	0.75 mm ²	X61	2 /1.E8	X9	1 /1.E2	1980
IL802	R2	BK	0.75 mm ²	X61	3 /1.E8	X7	1 /1.E2	2045
HFSD823	R2	GNRD	4.00 mm ²	X13	1 /1.D3	X84	2 /1.D8	1600
HFSD822	R2	BK	4.00 mm ²	X12	1 /1.D3	X84	1 /1.D8	1555

Device Names	Qty.	Manufacturer	Part Number	Description	Alternative
L7	1			Think Label Layout	
C334,C335	2	HellermannTyton	150-55610	CABLE TIE T18RDP5 - BK-110	
X84	1	KB COMPONENTS	947780	FASTON HOUSING BLACK 2 PIN MALE	
X7,X8,X9	3	TYCO	1544132-2	0.3-1.0 TERMINAL FEMALE FASTON 6.3	
X61	1	Tyco	1-962342-1	HOUSING 3 PIN MICRO TIMER	4113064
X7,X8,X9	3	Tyco	1544408-1	INSULATION SLEEVE FASTON 6.3	
X12,X13	2	Tyco	154717-4	2.5-4.0 FASTON 6.3	TYCO 11111
X12,X13	2	Tyco	154719-0	FASTON 6.3 HOUSING 1 PIN BLACK	
X84	2	Tyco	280080-4	4.0-6.0 FASTON MALE	
X61	3	Tyco	963900-1	0.5-1.0 MICRO TIMER 1.6X0.6 MALE	



Note:
When using the cloth tape.
Arrange the wires
(HFSD822, 823, IL53, 601 & 802)
like shown in figure below

A	N/A	New Drawing	19.04.2010	CP46	MSV	PBA
Revision	Task Number	Description	Date	Change Req	Prepared	Approved
HARNES		Document type				
MSV		Prepared by				
A306 MY2011 Pre-series		File name				
Approved by		A2	Sheet Size	Created	Change Date	Page 1 of 1
A306		Description	Drawing no		Status	
INTERIOR LIGHT w HFS			SUBPART 541.3055.B		DRAFT	

Interior Light w HFS

Plotted: 16.05.2011 13:35 msv

