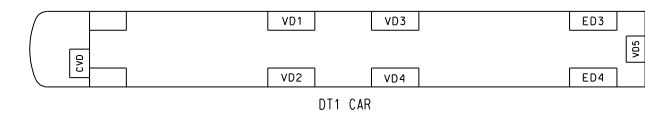




ED3.4	EMERGENCY EXHAUST DAMPER	
EDCR	ALL ED FULL CLOSED RELAY	
EDOR	ALL ED FULL OPENED RELAY	
EM	EMERGENCY EXHAUST DAMPER	CONTROL
RA	RETURN AIR DAMPER CONTROL	
VD1-5	VENTILATION DAMPER	
VDCR	ALL VD FULL CLOSED RELAY	
VDOR	ALL VD FULL OPENED RELAY	



COMMAND SIGNAL			VENTILATIONDAMPER (VD1-5) OPERATED STATUS
RA1	RA2	RA3	
H	H	H	STEP-0 FULL CLOSE
H	H	L	STEP-1
H	L	H	STEP-2
H	L	L	STEP-3
L	H	H	STEP-4
L	H	L	STEP-5 FULL OPEN

COMMAND SIGNAL (C3107)	EMERGENCY DAMPER (ED1-4) OPERATED STATUS
EM	
H	
L	

KCRC ER	DT1	A	*	B901
APPLIED CAR	CAR TYPE	GROUP	PES/CAR	KS DWG. GROUP NO.

[illegible]

DESIGNED BY	NIL
DRAWN BY	SRD
CHECKED BY	K.Y.CHEUNG
IN CHARGE	C.C.HON
DATE	26JAN2007



TITLE	SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC EXHAUST DAMPER CONTROL CIRCUIT (1/7)
-------	--

SCALE	METERED SW	SW	TIME	GROUP NO.
NTS @ A1				
ORIGINATOR KS	ORIGINATOR REFERENCE 2-UB03149			ORG REF REV f
DRAWING NUMBER SP1900AB/XC/RR/M5003				REV 0
RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1	



Diagram illustrating the layout of a PM1 CAR (Controlled Area Room). The room contains four ED (End User) stations and four VD (Video Display) stations. The stations are arranged in two rows: ED1, VD1, VD3, ED3 in the top row and ED2, VD2, VD4, ED4 in the bottom row. A double door is located on the right wall, labeled VD5.

COMMAND SIGNAL (C3107)	EMERGENCY DAMPER (ED1-4) OPERATED STATUS
EM	
H	
L	

e	'01.06.22	CHANGED ABBREVIATION
---	-----------	----------------------

DESIGNED BY
NIL
DRAWN BY
SRD
CHECKED BY
K. Y. CHEUNG
IN CHARGE
C. C. HON
DATE
26 JAN 2007



KCRC	WR	PMI	A	*	B901
KCRC	ER	PMI	A	*	B901
APPLIED CAR	CAR TYPE	GROUP	PCS/CWR	KS DING- CAR NO.	

SCALE					
NTS @ A1					
ORIGINATOR		ORIGINATOR REFERENCE		ORG REF REV	
KS		2-UBO3149-2		e	
DRAWING NUMBER					REV
SP1900AB/XC/RR/M5004					0
RAILWAY	LOCATION	STAGE	SHEET NO		
ER	HTL	Z	1		



The diagram illustrates the layout of a car interior with four eye detection zones (ED1, ED2, ED3, ED4) and two video camera zones (VD1, VD2). The zones are positioned around the driver and front passenger areas. Below the diagram, the text "M. TWH. CAR" is displayed.

COMMAND SIGNAL (C3107)	EMERGENCY DAMPER (ED1-4)
EM	OPERATED STATUS
H	FULL CLOSE
L	FULL OPEN

KCRC	WR	MHW	A	*	B901
KCRC	ER	TWH	A	*	B901
KCRC	ER	M	A	*	B901
APPLIED CAR	CAR TYPE	GROUP	PCS/CAR	KS DMC	GROUP No.

[illegible]

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NIL
DRAWN BY
SRD
CHECKED BY
K.Y.CHEUNG
IN CHARGE
C.C.HON
DATE
26JAN2007



TITLE	SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC EXHAUST DAMPER CONTROL CIRCUIT (3/7)
-------	--

SCALE		NTS @ A1	
ORIGINATOR KS	ORIGINATOR REFERENCE 2-UB03149-3	ORIG REF REV e	
DRAWING NUMBER SP1900AB/XC/RR/M5005			REV 0
RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1



ED1-4	EMERGENCY EXHAUST DAMPER
EDCR	ALL ED FULL CLOSED RELAY
EDOR	ALL ED FULL OPENED RELAY
EM	EMERGENCY EXHAUST DAMPER CONTROL
RA	RETURN AIR DAMPER CONTROL
VD1.2	VENTILATION DAMPER
VDCR	ALL VD FULL CLOSED RELAY
VDOOR	ALL VD FULL OPENED RELAY



TCH.TFH.MWH.MW2 CAR

COMMAND SIGNAL			VENTILATIONDAMPER (VD1-5) OPERATED STATUS
RA1	RA2	RA3	
H	H	H	STEP-0 FULL CLOSE
H	H	L	STEP-1
H	L	H	STEP-2
H	L	L	STEP-3
L	H	H	STEP-4
L	H	L	STEP-5 FULL OPEN

COMMAND SIGNAL (C3107)	EMERGENCY DAMPER (ED1-4)
EM	OPERATED STATUS
H	FULL CLOSE
L	FULL OPEN

KCRC WR	TCH	A	*	B901
KCRC WR	MW2	A	*	B901
KCRC ER	TH2	A	*	B901
KCRC ER	MW2	A	*	B901
KCRC ER	MWH	A	*	B901
KCRC ER	TCH	A	*	B901
KCRC ER	TFH	A	*	B901
APPLIED CAR	CAR TYPE	GROUP	PCS/CAR	KS DMC. (GROUP)

[illegible]

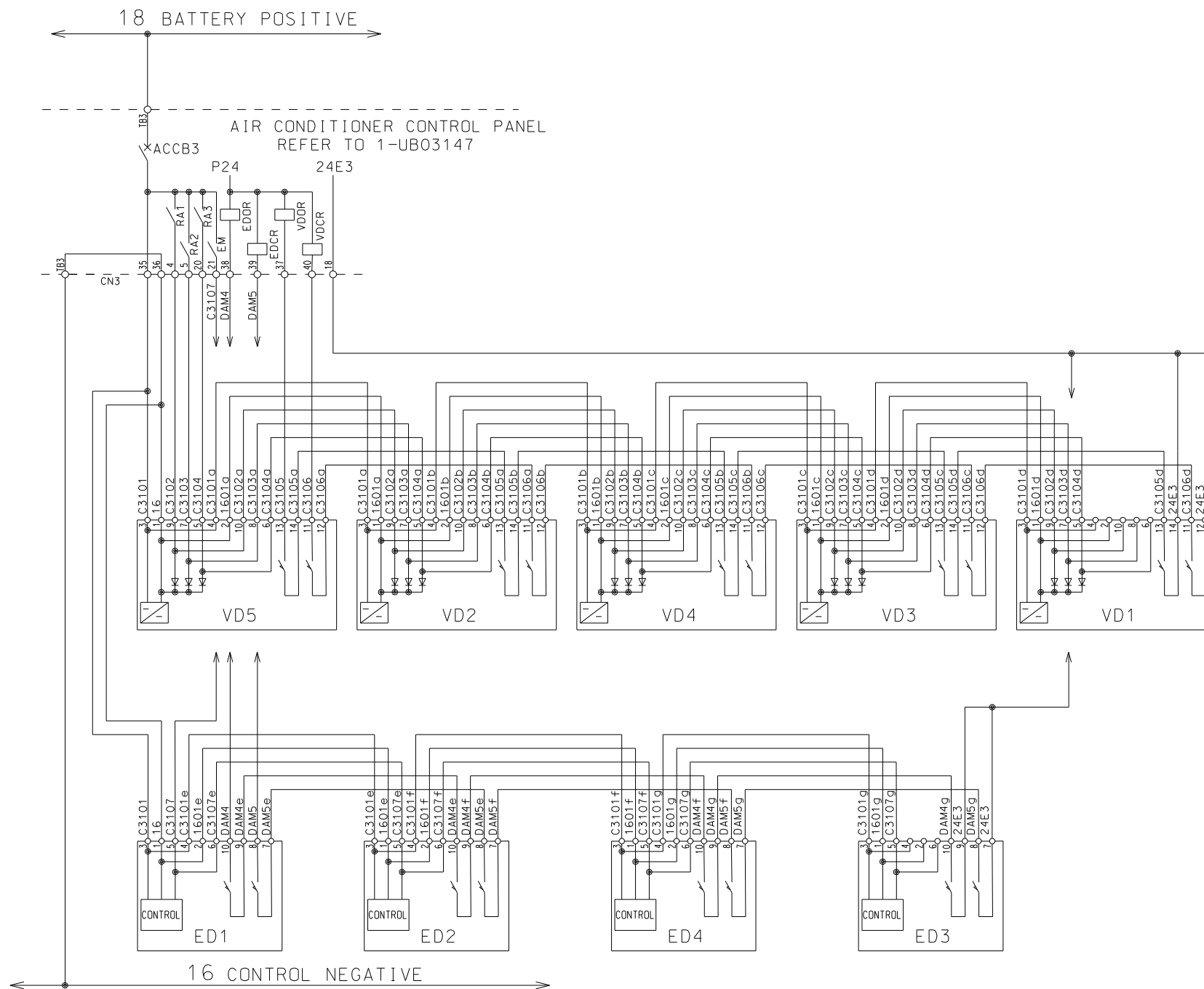
DESIGNED BY	NIL
DRAWN BY	SRD
CHECKED BY	K. Y. CHEUNG
IN CHARGE	C. C. HON
DATE	26 JAN 2007



運輸部
Transport Division

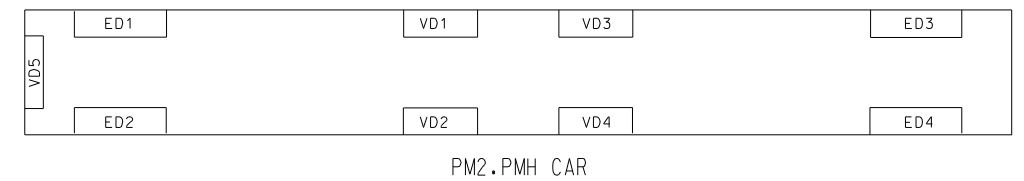
TITLE	SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC EXHAUST DAMPER CONTROL CIRCUIT (4/7)
-------	--

SCALE		NTS @ A1		GROUP NO.
ORIGINATOR KS	ORIGINATOR REFERENCE 2-UB03149-4		DRC REF REV e	
DRAWING NUMBER SP1900AB/XC/RR/M5006			REV 0	
RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1	



ABBREVIATION

ED1-4	EMERGENCY EXHAUST DAMPER
EDCR	ALL ED FULL CLOSED RELAY
EDOR	ALL ED FULL OPENED RELAY
EM	EMERGENCY EXHAUST DAMPER CONTROL
RA	RETURN AIR DAMPER CONTROL
VD1-5	VENTILATION DAMPER
VDCR	ALL VD FULL CLOSED RELAY
VDOR	ALL VD FULL OPENED RELAY



COMMAND SIGNAL			VENTILATIONDAMPER (VD1-5) OPERATED STATUS
RA1	RA2	RA3	
H	H	H	STEP-0 FULL CLOSE
H	H	L	STEP-1
H	L	H	STEP-2
H	L	L	STEP-3
L	H	H	STEP-4
L	H	L	STEP-5 FULL OPEN

COMMAND SIGNAL (C3107)	EMERGENCY DAMPER (ED1-4)
EM	OPERATED STATUS
H	FULL CLOSE
L	FULL OPEN

KCRC	WR	PM2	A	*	B901
KCRC	ER	PMH	A	*	B901
KCRC	ER	PM2	A	*	B901
APPLIED CAR	CAR TYPE	GROUP	PCS/CAR	KS DWG.	GROUP NO.

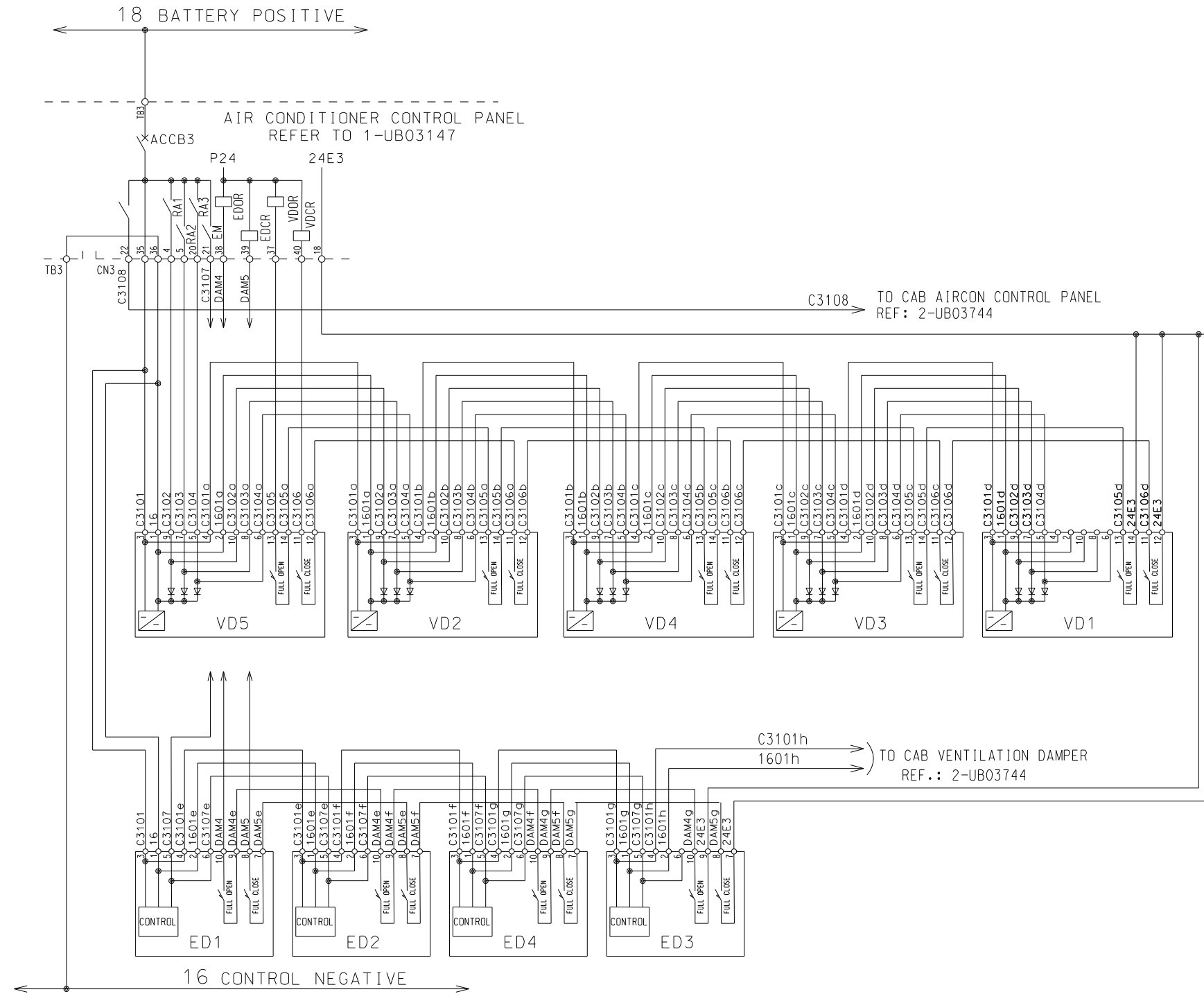
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IN CHARGE	C.C.HON
DATE	26JAN2007



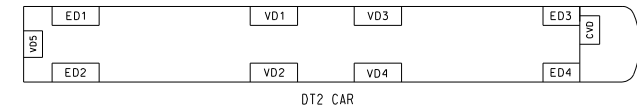
TITLE	SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC EXHAUST DAMPER CONTROL CIRCUIT (5/7)
-------	--

SCALE			UNITED KINGDOM
NTS @ A1			
ORIGINATOR KS	ORIGINATOR REFERENCE 2-UB03149-5	ORG REF REV @	
DRAWING NUMBER			REV
SP1900AB/XC/RR/M5007			0
RAILWAY	LOCATION	STAGE	SHEET NO
ER	HTL	Z	1



ABBREVIATION

ED1-4	EMERGENCY EXHAUST DAMPER
EDCR	ALL ED FULL CLOSED RELAY
EDOR	ALL ED FULL OPENED RELAY
EM	EMERGENCY EXHAUST DAMPER CONTROL
RA	RETURN AIR DAMPER CONTROL
VD1-5	VENTILATION DAMPER
VDCR	ALL VD FULL CLOSED RELAY
VDOR	ALL VD FULL OPENED RELAY



COMMAND SIGNAL			VENTILATIONDAMPER (VD1-5) OPERATED STATUS	
RA1	RA2	RA3		
H	H	H	STEP-0	FULL CLOSE
H	H	L	STEP-1	
H	L	H	STEP-2	
H	L	L	STEP-3	
L	H	H	STEP-4	
L	H	L	STEP-5	FULL OPEN

COMMAND SIGNAL (C3107)		EMERGENCY DAMPER (ED1-4) OPERATED STATUS	
EM			
H		FULL CLOSE	
L		FULL OPEN	

REV	DATE	BY	SUB	APP	DESCRIPTION
1	26JAN07	SRD	K.Y.	C.C.	FIRST ISSUE

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IN CHARGE	C.C.HON
DATE	26JAN2007

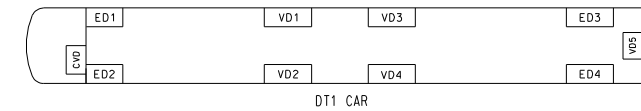


TITLE	
SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC EXHAUST DAMPER CONTROL CIRCUIT (6/7)	

KCRC WR	DT2	A	*	B901
KCRC ER	DT2	A	*	B901
APPLIED CAR	CAR TYPE	GROUP	PCS/CAR	KS DWG. GROUP NO.
SCALE				
NTS @ A1				
ORIGINATOR	ORIGINATOR REFERENCE	ORIG REF REV		
KS	2-UB03149-6	f		
DRAWING NUMBER		REV		
SP1900AB/XC/RR/M5008		0		
RAILWAY	LOCATION	STAGE	SHEET NO	
ER	HTL	Z	1	



ED3.4	EMERGENCY EXHAUST DAMPER	
EDCR	ALL ED FULL CLOSED RELAY	
EDOR	ALL ED FULL OPENED RELAY	
EM	EMERGENCY EXHAUST DAMPER	CONTROL
RA	RETURN AIR DAMPER CONTROL	
VD1-5	VENTILATION DAMPER	
VDCR	ALL VD FULL CLOSED RELAY	
VDOR	ALL VD FULL OPENED RELAY	



COMMAND SIGNAL			VENTILATIONDAMPER (VD1-5) OPERATED STATUS
RA1	RA2	RA3	
H	H	H	STEP-0 FULL CLOSE
H	H	L	STEP-1
H	L	H	STEP-2
H	L	L	STEP-3
L	H	H	STEP-4
L	H	L	STEP-5 FULL OPEN

COMMAND SIGNAL (C3107)	EMERGENCY DAMPER (ED1-4)
EM	OPERATED STATUS
H	FULL CLOSE
L	FULL OPEN

KCRC WR	DT2	A	*	B901
KCRC WR	DT1	A	*	B901
APPLIED CAR	CAR TYPE	GROUP	PCS/CAR	KS DNG. GROUP NO.

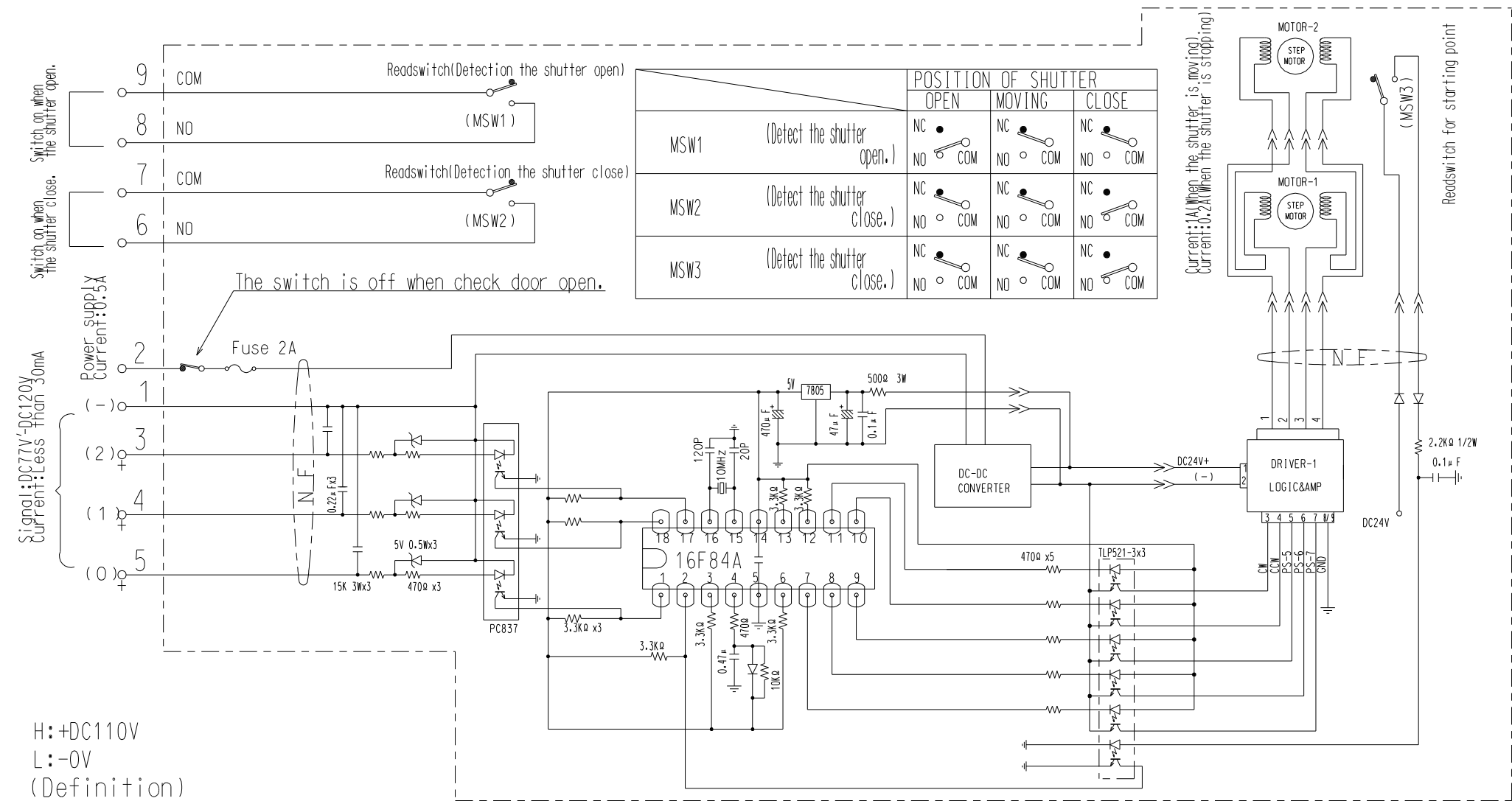
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REV	DATE	BY	SUB	APP	DESCRIPTION									
							26JAN07	SRD	K.Y.	C.C.	FIRST	ISSUE		DESCRIPTION
							DATE	BY	SUB	APP				

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DATE	26 JAN 2007



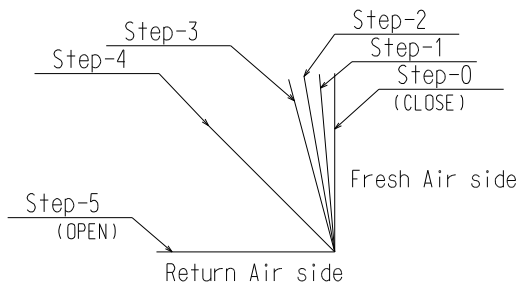
TITLE	SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC EXHAUST DAMPER CONTROL CIRCUIT (7/7)
-------	--

SCALE		NTS @ A1	
ORIGINATOR KS	ORIGINATOR REFERENCE 2-UB03149-7	ORG REF REV 1	
DRAWING NUMBER SP1900AB/XC/RR/M5009			REV 0
RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1



H: +DC110V
L: -0V
(Definition)
[CLOSE] Return Air:100%/Fresh Air:0% Step-0
[OPEN] Return Air:0%/Fresh Air:100% Step-5

Angle of the shutter	Power input		
	2	1	0
Step-0	H	H	H
Step-1	H	H	L
Step-2	H	L	H
Step-3	H	L	L
Step-4	L	H	H
Step-5	L	H	L

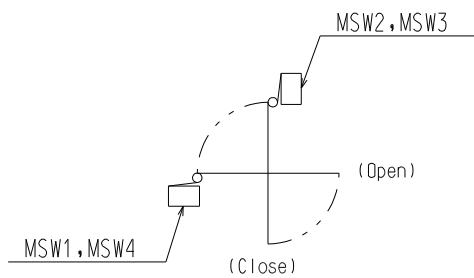


























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1	26JAN07	SRD	K.Y.	C.C.	FIRST ISSUE

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MANUFACTURER TOSHIBA CARRIER CORPORATION		MANUFACTURER'S DRAWING No. K-35679 REV. B			
TITLE SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC FRESH / RETURN AIR DAMPER (2/2)		SCALE NTS @ A1			
		ORIGINATOR TOSHIBA	ORIGINATOR REFERENCE K-35679	ORG REF REV B	REV
		DRAWING NUMBER SP1900AB/XC/RR/M5010			0
		RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1



	POSITION OF SHUTTER		
	OPEN	MOVING	CLOSE
MSW1 (Detect the shutter open.)	NC  NO  COM	NC  NO  COM	NC  NO  COM
MSW2 (Detect the shutter close.)	NC  NO  COM	NC  NO  COM	NC  NO  COM
MSW3 (Detect the shutter close.)	NC  NO  COM	NC  NO  COM	NC  NO  COM
MSW4 (Detect the shutter open.)	NC  NO  COM	NC  NO  COM	NC  NO  COM

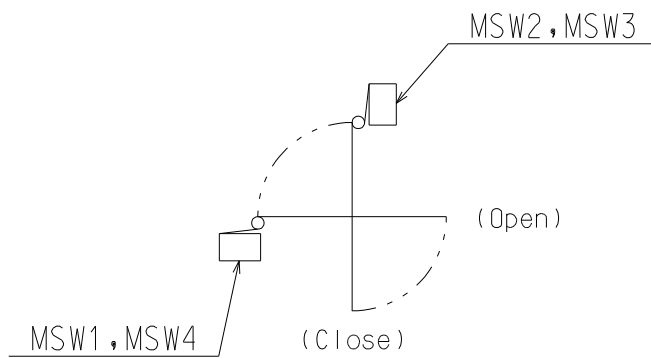
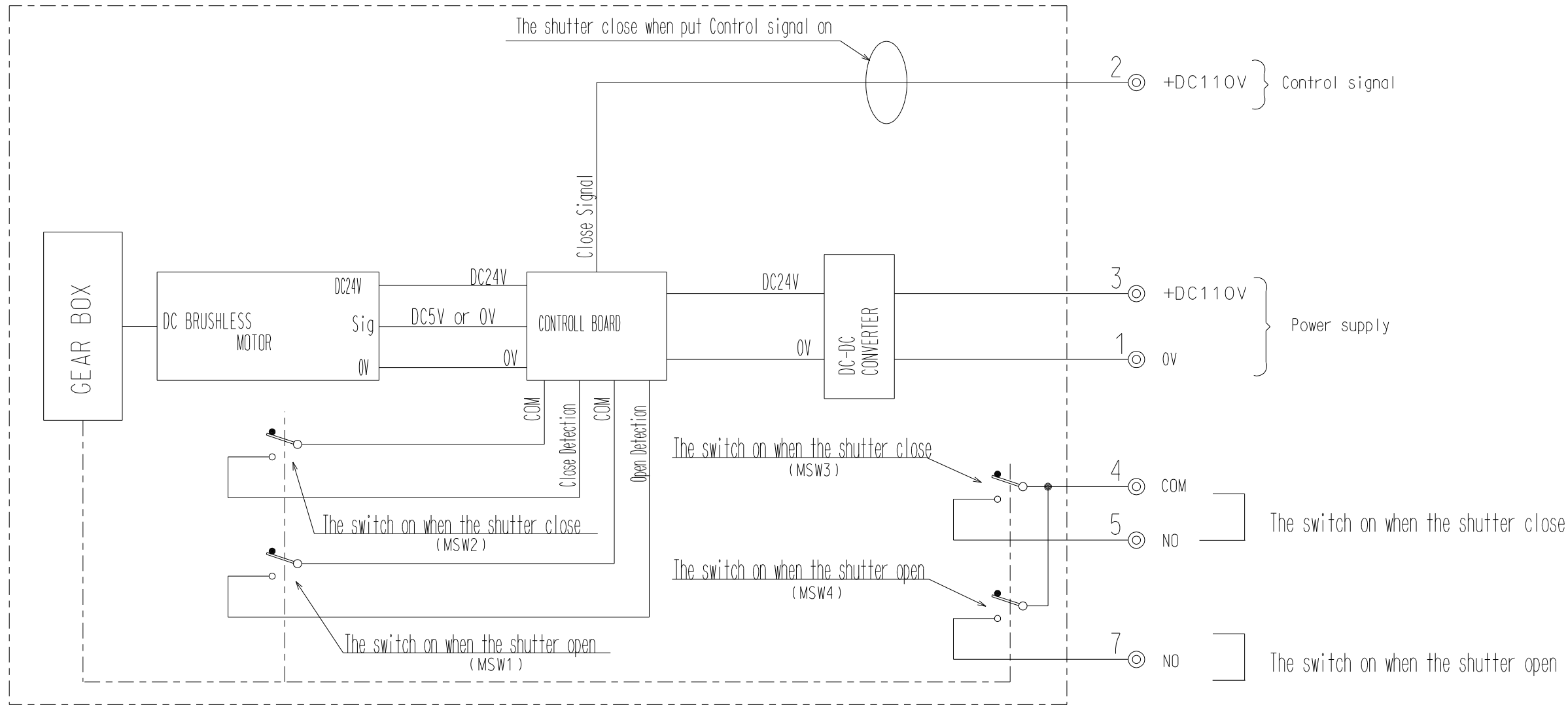
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























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IN CHARGE	C.C. HON
DATE	26 JAN 2007



MANUFACTURER TOSHIBA CARRIER CORPORATION		MANUFACTURER'S DRAWING No. K-35751 REV. A				
TITLE	SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC EMERGENCY DAMPER (2/2)		SCALE			
			NTS @ A1			
			ORIGINATOR TOSHIBA	ORIGINATOR REFERENCE K-35751	ORIG REF A	
			DRAWING NUMBER SP1900AB/XC/RR/M5011		REV 0	
			RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1

DMP-010 (Emergency Damper for motorman's seat)



		POSITION OF SHUTTER		
		OPEN	MOVING	CLOSE
MSW1	(Detect the shutter open.)	NC  NO  COM	NC  NO  COM	NC  NO  COM
MSW2	(Detect the shutter close.)	NC  NO  COM	NC  NO  COM	NC  NO  COM
MSW3	(Detect the shutter close.)	NC  NO  COM	NC  NO  COM	NC  NO  COM
MSW4	(Detect the shutter open.)	NC  NO  COM	NC  NO  COM	NC  NO  COM

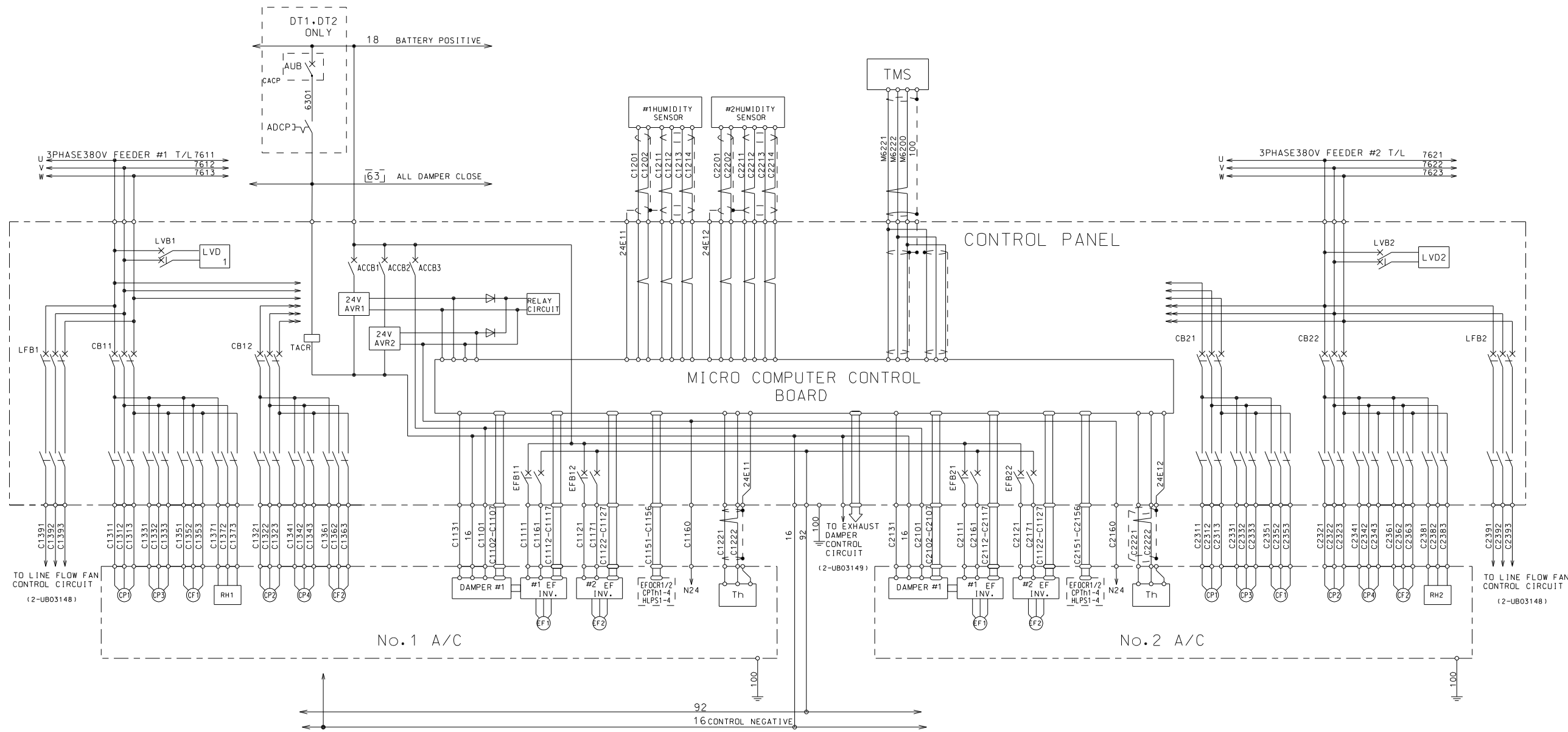
[illegible]

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CHECKED BY	K. Y. CHEUNG
IN CHARGE	C. C. HON
DATE	26 JAN 2007



TITLE	SP1900 ELECTRIC MULTIPLE UNITS ELECTRICAL SCHEMATIC FRESH AIR DAMPER (2/2)
-------	--

SCALE			
NTS @ A1			
ORIGINATOR TOSHIBA	ORIGINATOR REFERENCE K-35752		ORG REF REV B
DRAWING NUMBER SP1900AB/XC/RR/M5012			REV 0
RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1

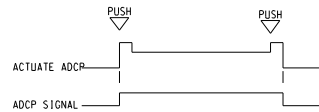


ABBREVIATION

ADCP : ALL DAMPER CLOSE PUSH BUTTON
ACCB : AIR CONDITIONER CONTROL CIRCUIT BREAKER

NOTE

ADCP IS ALTERNATE SWITCH.
IF ADCP PUSHED,KEEP TO MAKE SIGNAL TO CLOSE
DAMPERS UNTIL ADCP PUSHED AGAIN.



KCRC	WR	DT2	A	*	B901
KCRC	WR	PM2	A	*	B901
KCRC	WR	MHW	A	*	B901
KCRC	WR	TCH	A	*	B901
KCRC	WR	MW2	A	*	B901
KCRC	WR	PM1	A	*	B901
KCRC	WR	DT1	A	*	B901
KCRC	ER	M	A	*	B901
KCRC	ER	PM1	A	*	B901
KCRC	ER	PM2	A	*	B901
KCRC	ER	DT2	A	*	B901
KCRC	ER	TWH	A	*	B901
KCRC	ER	TCH	A	*	B901
KCRC	ER	TH2	A	*	B901
KCRC	ER	MWH	A	*	B901
KCRC	ER	PMH	A	*	B901
KCRC	ER	TFH	A	*	B901
KCRC	ER	MW2	A	*	B901
KCRC	ER	DT1	A	*	B901
APPLIED CAR					KS Dwg. GROUP No.

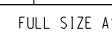
DESIGNED BY NIL	DRAWN BY SRD	CHECKED BY K.Y. CHEUNG	IN CHARGE C.C. HON	DATE 26JAN2007
REV	DATE	BY	SUB	APP
1	26JAN07	SRD	K.Y. C.C.	FIRST ISSUE

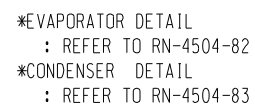


TITLE
SP1900 ELECTRIC MULTIPLE UNITS
ELECTRICAL SCHEMATIC
SALOON AIR CONDITIONER
CONTROL CIRCUIT

SCALE				NTS @ A1	
ORIGINATOR KS		ORIGINATOR REFERENCE 1-UB03147		ORG REF REV f	
DRAWING NUMBER SP1900AB/XC/RR/M5000				REV 0	
RAILWAY ER		LOCATION HTL		STAGE Z	
				SHEET NO 1	

MICROCOMPUTER CONTROL BOARD (STAND BY DOUBLE SYSTEM)



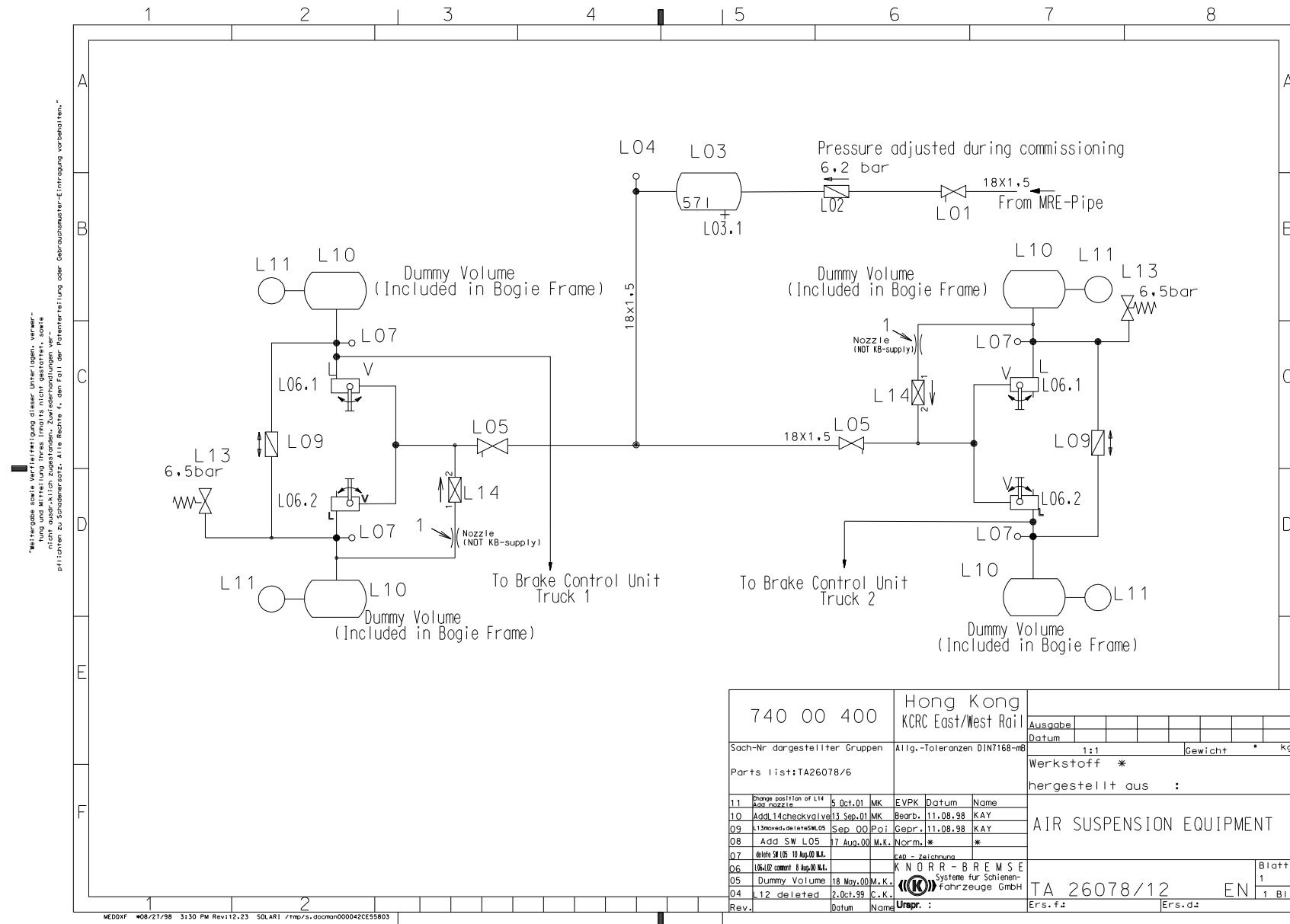


DESIGNED BY NIL	 <div> KCR 九廣鐵路 </div>	<div>運輸部</div> <div>Transport Division</div>
DRAWN BY SRD		
CHECKED BY K.Y. CHEUNG		
IN CHARGE C. C. HON		
DATE 26 JAN 2007		

TITLE	SP1900 ELECTRIC MULTIPLE UNITS CIRCUIT DIAGRAM
	SALOON AIR CONDITIONER SCHEME OF REFRIGERATING CIRCUIT

SCALE			
NTS @ A1			
ORIGINATOR TOSHIBA	ORIGINATOR REFERENCE SSD-NJ-00030	ORIG REV REF 13	
DRAWING NUMBER SP1900AB/XC/RR/N7000			REV 0
RAILWAY ER	LOCATION HTL	STAGE Z	SHEET NO 1

ITEM NO.	DESCRIPTION	VENDOR/PART NO.	MATERIAL	QTY PER SET	WEIGHT		REMARKS	REV.
					WE. PER	WE. TOTAL		
L01	ISOLATING COCK 1/2" WITH VENT	A63024					126568	
L02	OVERFLOW VALVE	B43547					169866	
L04	AIR RESERVOIR	C74497					1138284/057	
L03.1	DRAIN COCK	A66272					1142097	
L04	TEST FITTING	B62353					179470/07	
L05	ISOLATING COCK 1/2" WITH VENT	C72128					1123151/15	
L6.1	LEVELING VALVE	C87800					1145273/001	
L6.2	LEVELING VALVE	C87800					1145273/002	
L07	TEST FITTING	B62353					179470/07	
L09	OVERFLOW VALVE	B43547					125510/01	
L11	AIR SPRING BELLOW	2P112771						
L13	SAFETY VALVE	C74087					1138283/4065	
L14	CHECK VALVE	A59143					125352	
1	CHOKE						Ø2.0	



740 00 400				Hong Kong KCR East/West Rail				Ausgabe											
Sach-Nr dargestellter Gruppen				Allg.-Toleranzen DIN7168-mB				Datum				1:1				Gewicht * kg			
Parts list:TA26078/6								Werkstoff *											
								hergestellt aus				:							
11	Change position of L14 Add nozzle			5 Oct.01	MK	EVPK	Datum	Name											
10	Add 14checkvalve			13 Sep.01	MK	Bearb.	11.08.98	KAY			AIR SUSPENSION EQUIPMENT								
09	L13moved,deletedML05			Sep.00	Pol	Gepr.	11.08.98	KAY											
08	Add SW L05			17 Aug.00	M.K.	Norm.	*	*											
07	delete SW L05 to Aug.00 M.L.			CAD - Zeichnung															
06	(16x12) current 8 Aug.00 M.L.			KNORR - BREMSE															
05	Dummy Volume			18 May.00	M.K.	(K)	systeme für Schienen- fahrzeuge GmbH											Blatt 1	
04	12 deleted			2 Oct.99	C.K.	Urspr. :	TA 26078/12											EN 1 Bl	
Rev.				Datum	Name	Ers.f.z											Ers.d		

```
$USRF$
PLOT DRV:$PLTDRVL$
PRINTED BY:$USER$
$DATE$ $TIME$
FILENAME:$FILE$
```

[illegible]

DESIGNED BY NIL	 KCR 	運輸部 Transport Division
DRAWN BY SRD		
CHECKED BY K. Y. CHEUNG		
IN CHARGE C. C. HON		
DATE 26 JAN 2007		

TITLE	SP1900 ELECTRIC MULTIPLE UNITS			SCALE		
	PNEUMATIC SCHEMATIC			NTS @ A1		
	ORIGINATOR		ORIGINATOR REFERENCE		ORIG REF	
	KHI		2P705549-5510		b	
	DRAWING NUMBER				REV	
	SP1900AB/XF/RR/N7003				0	
	RAILWAY		LOCATION	STAGE	SHEET NO	
ER		HTL	Z	1		