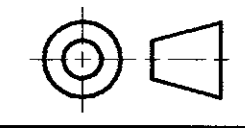


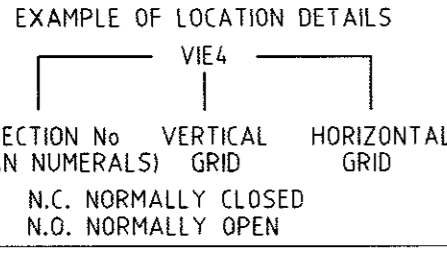
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BR1	BRAKE RELAY	EQP	EQUIPMENT PROTECTION RELAY	GR	GROUND RELAY	OSRA	OVER SPEED RELAY AUXILIARY	TSR	TRANSFER SWITCH RELAY
COIL LOCATION	N.C. J1-J2 K1-K2 L1-L2 M1-M2	COIL LOCATION	N.C. C1-C2 E1-E2 F1-F2	COIL LOCATION	N.C. J-K Q-R	COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. 15-16
VE10	LOC. VII7 VII2 VII4 VII6	VE13	LOC. VII3 VE7	RESET VE15	LOC. VID2 VD2	VE7	LOC. VII13	VE2	LOC. VII3
PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2 F1-F2 G1-G2 H1-H2	PART No.	N.O. A1-A2 B1-B2 D1-D2	PART No.	N.O. A-B C-D E-F G-H	PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2 F1-F2
8361774	LOC. VA10 VA10 VII4 VII12 VII11 VID3 IB2 VII1	8361775	LOC. VE7	8361776	LOC. VIB6 VII14 VC15 VA5	8357415	LOC. VC11	8424310	LOC. IIB4 IIB3 VII10
BR2	BRAKE RELAY	ER	ENGINE RELAY	GSR	GOVERNOR SHUT DOWN RELAY	PRR	POWER CONTROL RELAY	TSW	TIMER STEPS WALKWAY
COIL LOCATION	N.C. J1-J2 K1-K2 L1-L2 M1-M2	COIL LOCATION	N.C. C1-C2 F1-F2	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. C1-C2 F1-F2	COIL LOCATION	N.C. 15-16
VE9	LOC. VB7 IIC4 VID3	VE2	LOC. VC2	VE4	LOC. 1C-1NO 2C-2NO	VE9	LOC. VII2	IVC9	LOC. IVC9
PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2 F1-F2 G1-G2 H1-H2	PART No.	N.O. A1-A2 B1-B2 D1-D2 E1-E2	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. A1-A2 B1-B2 D1-D2 E1-E2	PART No.	N.O. 15-18
8361774	LOC. VB7 VID3 VII13 IIC3 IB5 VII13 VID1 VID2	8357416	LOC. VD14 VD13 VD13 VC17	8363168	LOC. VII14	8357416	LOC. VC6	SEE NOTE 1	LOC. IVC9
BRA	BRAKE RELAY AUXILIARY	FAR	FIRE ALARM RELAY	GVL	GENERATOR VOLTAGE LIMITER RELAY	RER	REVERSING RELAY	VCR	VIGILANCE CONTROL RELAY
COIL LOCATION	N.C. C1-C2 F1-F2	COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. G1-G2 H1-H2 J1-J2 K1-K2 L1-L2 M1-M2	COIL LOCATION	N.C. C1-C2 F1-F2
VE10	LOC. VII3	VE4	LOC. 1C-1NO 2C-2NO 3C-3NO	VE15	LOC. VII3	VE6	LOC. VIB3 IIC4 VD7	VE18	LOC. VID3
PART No.	N.O. A1-A2 B1-B2 D1-D2 E1-E2	PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2 F1-F2	PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2 F1-F2	PART No.	N.O. A1-A2 B1-B2 D1-D2 E1-E2
8357416	LOC. IB7 IB5 IB6	8424310	LOC. VII15 VB2 VA4 VB5 VA3	8357415	LOC. VD15 VID5	8357418	LOC. VIB3 IIC4 VD16 VD7 VB17	8357416	LOC. VA12 VB18 VB21
CDR	CONTACTOR DELAY RELAY	FCX	FAN CONTACTOR AUXILIARY	LUR	LEAD UNIT RELAY	RV	MOTOR TRANSFER SWITCH	WL	WHEEL SLIP LIGHT RELAY
COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. C1-C2 F1-F2	COIL LOCATION	N.C. A-B C-D N-P Y-V	COIL LOCATION	N.C. 1C-1NC 2C-2NC
VE3	LOC. 1C-1NO 2C-2NO 3C-3NO	VE14	LOC. 1C-1NO 2C-2NO	VE9	LOC. VII2	IIE4	LOC. VIC3 VIB10 VD7 IIC4	VE11	LOC. VD11
PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. A1-A2 B1-B2 D1-D2 E1-E2	PART No.	N.O. E-F G-H Q-R X-W	PART No.	N.O. 1C-1NO 2C-2NO
8357415	LOC. VID3 VIB4 VIB4	8363168	LOC. VIB10	8357416	LOC. VII3 VD9 VD6	8453176	LOC. VIC3 VD7 IIC4	8363168	LOC. VBS
COR	CUT-OUT RELAY	FCY	FAN CONTACTOR AUXILIARY	MB	MOTOR TRANSFER SWITCH	RVF	TRANSFER SWITCH FORWARD RELAY	WS16	WHEEL SLIP RELAY
COIL LOCATION	N.C. C1-C2 E1-E2 F1-F2	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. X-W E-F G-H Q-R	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. C-D E-F
VE12	LOC. VII3 VID3 VII3	VE13	LOC. VIB10	IIE3	LOC. IIC3 VIC3 VIC4	VE10	LOC. IIC4	IB5	LOC. VII2 VII2
PART No.	N.O. A1-A2 B1-B2 D1-D2	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. A-B C-D N-P Y-V	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. A-B G-H
8361775	LOC. VD7 VII14 VII8	8363168	LOC. 1C-1NO 2C-2NO	8453176	LOC. VIC3 I-E2 IIC4	8363168	LOC. IIC4	8419564	LOC. VB11 VB11
DGX	DYNAMIC GRID EXCITATION RELAY	FOR	FORWARD RELAY	MCOX	MOTOR CUT-OUT AUXILIARY RELAY	SPY	SERIES PARALLEL AUXILIARY RELAY	WS25	WHEEL SLIP RELAY
COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. G1-G2 H1-H2 J1-J2 K1-K2 L1-L2 M1-M2	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. C1-C2 E1-E2 F1-F2	COIL LOCATION	N.C. C-D E-F
VIE16	LOC. VC3	VE6	LOC. VIB3 IIC4 VD7	VE11	LOC. IIC4	VE4	LOC. VIE2 VD7	IB6	LOC. VII2 VII2
PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2 F1-F2	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. A1-A2 B1-B2 D1-D2	PART No.	N.O. A-B G-H
8357415	LOC. VID3 VD7	8357418	LOC. VIB3 IIC4 VD16 VD7 VB18	8363168	LOC. IIC4 VIC10	8361775	LOC. VIB3 VIC6	8419564	LOC. VB11 VB11
DP1	DYNAMIC BRAKE PILOT RELAY	FPC	FUEL PUMP CONTACTOR	MR	MOTORS RELAY	SWR	STEPS WALKWAY RELAY	WS34	WHEEL SLIP RELAY
COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. F1-F2	COIL LOCATION	N.C. J1-J2 K1-K2 L1-L2 M1-M2	COIL LOCATION	N.C. 1-2 3-4 5-6	COIL LOCATION	N.C. C-D E-F
VIE10	LOC. VII10	VE1	LOC. VB12	VE7	LOC. VD10 VII4 IB3 VII4	IVC9	LOC. IVC9 IVC10 IVC10	IB7	LOC. VII2 VII2
PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2	PART No.	N.O. A1-A2 B1-B2 C1-C2 D1-D2 E1-E2 F1-F2 G1-G2 H1-H2	PART No.	N.O. 1-2 3-4 5-6	PART No.	N.O. A-B G-H
8357415	LOC. VII10 VID7 VII10	8357417	LOC. VID1 IIB3 VD13 VE2 VD12	8361774	LOC. VII2 VID3 VII12 VID2 VD12 VA12 VII2 VC13	SEE NOTE 2	LOC. IVC9 IVC10 IVC10	8419564	LOC. VB12 VB12
DP1A	DYNAMIC BRAKE PILOT AUXILIARY RELAY	FPR	FUEL PUMP RELAY	NIR	NORMAL IDLE RELAY	TDS	SANDING TIME DELAY		
COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C. A	COIL LOCATION	N.C.
VIE9	LOC. 1C-1NO 2C-2NO	VE9	LOC. 1C-1NO 2C-2NO	VE17	LOC. VD13 VD14	VE11	LOC. 1C-1NO 2C-2NO	LOC.	LOC.
PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O. B	PART No.	N.O.
8363168	LOC. VII1 C1-VII2	8363168	LOC. VID1 IIB3	8363168	LOC. VD13 VD14	8276598	LOC. VC16	LOC.	LOC.
DP2	DYNAMIC BRAKE PILOT RELAY	FSRA	FIELD SHUNT AUXILIARY RELAY	NVR	NO VOLT (A.C.) RELAY	THL	THROTTLE LIMIT RELAY		
COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. A-B C-D E-F	COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C.
VIE10	LOC. VII10	VE7	LOC. VC12	IIC7	LOC. VB17 VID1 VIE1	VE3	LOC. 1C-1NO 2C-2NO 3C-3NO	LOC.	LOC.
PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. G-H	PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O.
8357415	LOC. VII10 VID8 VII10	8357415	LOC. VC12 VID6	8421231	LOC. VD1	8357415	LOC. VIC10 VC13 VII15	LOC.	LOC.
DP3	DYNAMIC BRAKE PILOT RELAY	GFX	GENERATOR FIELD AUXILIARY RELAY	OCP	OPEN CIRCUIT PROTECTOR	THX	THROTTLE AUXILIARY RELAY		
COIL LOCATION	N.C. 1C-1NC 2C-2NC 3C-3NC	COIL LOCATION	N.C. C1-C2 E1-E2 F1-F2	COIL LOCATION	N.C. E-F G-H	COIL LOCATION	N.C. 1C-1NC 2C-2NC	COIL LOCATION	N.C.
VIE11	LOC. VII11	VE2	LOC. VII12 VB11	OPER. IB5 RESET VIE12	LOC. VIE3	VE15	LOC. 1C-1NO 2C-2NO	LOC.	LOC.
PART No.	N.O. 1C-1NO 2C-2NO 3C-3NO	PART No.	N.O. A1-A2 B1-B2 D1-D2	PART No.	N.O. A-B C-D	PART No.	N.O. 1C-1NO 2C-2NO	PART No.	N.O.
8357415	LOC. VII11 VID8 VII11	8361775	LOC. VB17 VII2 VB10	8421610	LOC. VII14 VC3	8363168	LOC. VB7 VC19	LOC.	LOC.



QUEENSLAND RAILWAYS 3RD EDWARD STREET BRISBANE Q. 4000
 NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR COPIED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF QUEENSLAND RAILWAYS.
 DISCLAIMER: THIS DOCUMENT IS PRODUCED FOR QUEENSLAND RAILWAYS PURPOSES ONLY AND SHOULD NOT BE USED OR RELIED ON BY ANY PERSON OR CORPORATION. THIS DOCUMENT IS DISTRIBUTED ON THE BASIS THAT QUEENSLAND RAILWAYS EXPRESSLY DISCLAIMS ALL OR ANY LIABILITY AND RESPONSIBILITY TO ANY PERSON IN RESPECT OF ANYTHING DONE OR OMISSION TO BE DONE IN RELIANCE, WHETHER WHOLLY OR PARTIALLY, UPON ANY PART OF THE CONTENTS OF THIS DOCUMENT.

DATE: _____
 INIT'L S: _____
 CHKD: _____
 CORR'P: _____

ALTERATION: _____
 REV: _____



- NOTES:-
1. TSW TIMER STEPS WALKWAY IS SYRELEC TYPE BLRM. (FOR TIMER SETTING DETAILS REFER DWG A2-33115)
 2. SWR STEPS WALKWAY RELAY IS NHP SPRECHER & SCHUH RELAY TYPE CA312C1074VDC.

MB SHOWN IN MOTOR POSITION
 RV SHOWN IN FORWARD POSITION

NOTE:- FOR ORIGINAL DRAWING REFER Q.R. DWG No. DEW134

MRE W. THOMAS				QUEENSLAND RAILWAYS OFFICE OF THE MANAGER, ROLLINGSTOCK ENGINEERING				SCALE: _____	REF. _____
				DIESEL LOCOS 2170-2180 (EXTENDED CAB) PHYSICAL CIRCUIT DIAGRAM-RELAY LOCATIONS & IDENTIFICATIONS GL22C-2 SECTION X SHEET 2				DRAWN: A BOYD	A2-33117
								CHECKED: 19/9/11/2	
ITEM	DESCRIPTION	ORDERING SIZE	QTY PER ASSY	SPECIFICATION	DATE: 20.11.98	APPROVED: JCR	REV. _____	_____	