

# Checklist of CEM BS RTN\_VLV DRY

## VLV-DRY CARD

SI No	PIN DETAILS	DESCRIPTION	EXPECTED	OBSERVATION	
				ISRC	FSRC
1	CIP-1 wrt CIR-1	PSOM 4 power cut-off cmd	150-450mΩ	233mΩ	236mΩ
2	CIP-2 wrt CIR-2	PSOM 4 power cut-off cmd/	150-450mΩ	250mΩ	251mΩ
3	CIP-3 wrt CIR-3	PSOM 5 power cut-off cmd	250-500mΩ	273mΩ	276mΩ
4	CIP-4 wrt CIR-4	PSOM 5 power cut-off cmd/	300-500mΩ	339mΩ	343mΩ
5	CIP-13 wrt CIR-13	PS1 TVC Actuator power internal cmd	500-800mΩ	553mΩ	551mΩ
6	CIP-14 wrt CIR-14	PS1 TVC Actuator power internal cmd/	500-800mΩ	616mΩ	616mΩ
7	CIP-18 wrt CIR-18	PSOM 4 SITVC error signal ON cmd	500-800mΩ	556mΩ	553mΩ
8	CIP-19 wrt CIR-19	PSOM 4 SITVC error signal ON cmd/	500-800mΩ	611mΩ	605mΩ
9	CIP-17 wrt CIR-17	PSOM 4 SITVC error signal OFF cmd	600-900mΩ	698mΩ	695mΩ
10	CIP-23 wrt CIR-23	PSOM 4 SITVC error signal OFF cmd /	400-700mΩ	520mΩ	517mΩ
11	CIP-20 wrt CIR20	PSOM 5 SITVC error signal ON cmd	600-900mΩ	671mΩ	667mΩ
12	CIP-21 wrt CIR-21	PSOM 5 SITVC error signal ON cmd /	600-900mΩ	628mΩ	623mΩ
13	CIP-44 wrt CIR-44	PSOM 5 SITVC error signal OFF cmd	0.7-1Ω	737mΩ	732mΩ
14	CIP-45 wrt CIR-45	PSOM 5 SITVC error signal OFF cmd/	0.7-1Ω	734mΩ	726mΩ
15	CIP-26 wrt CIR-26	PS1 RCT Stop cmd	0.7-1Ω	699mΩ	693mΩ
16	CIP-27 wrt CIR-27	PS1 RCT Stop cmd/	500-800mΩ	590mΩ	588mΩ
17	CIP-28 wrt CIR-28	EGC ACC coil high	250-500mΩ	361mΩ	362mΩ
18	CIP-29 wrt CIR-29	EGC ACC OFF cmd	300-500mΩ	355mΩ	358mΩ
19	CIP-30 wrt CIR-30	EGC ACC ON cmd	200-500mΩ	305mΩ	304mΩ
20	CIP-31 wrt CIR-31	EGC ACC ON cmd	200-500mΩ	321mΩ	322mΩ
21	CIP-32 wrt CIR-32	EGC ACC	350-650mΩ	391mΩ	394mΩ
22	CIP-33 wrt CIP-48	28 V in	<100mΩ	10mΩ	18mΩ
23	CIR-33 wrt CIR-48	28 V in	<100mΩ	64mΩ	61mΩ
24	CIP-46 wrt CIP-47	S/A(P)	<250mΩ	157mΩ	161mΩ
25	CIR-46 wrt CIR-47	S/A(R)	400-700mΩ	460mΩ	452mΩ
26	CIP-34 wrt CIR-34	PSOM 4 power cutoff contact supply	<250mΩ	171mΩ	176mΩ

27	CIP-35 wrt CIR-35	PSOM 5 power cutoff contact supply	200-500mΩ	272mΩ	271mΩ
28	CIP-40 wrt CIR-40	PS1 TVC INT contact supply	400-700mΩ	439mΩ	433mΩ
29	CIP-42 wrt CIR-42	PSOM 4 SITVC error contact supply	400-700mΩ	488mΩ	487mΩ
30	CIP-43 wrt CIR-43	PSOM 5 SITVC error contact supply	0.7-1Ω	751mΩ	744mΩ
31	CIP-49 wrt CIR-49	+5V	400-700mΩ	484mΩ	482mΩ
32	CIP-50 wrt CIR-50	RTN	250-500mΩ	332mΩ	329mΩ
Issue EGC ACC ON Cmd (Apply 28V at CIP-47 wrt CIP-30)					
33	CIP-49 wrt PO16	+5V & ST.MON	1.47 kΩ±2%	1.474kΩ	1.473kΩ
34	CIP-49 wrt PO17		1.47 kΩ±2%	1.472kΩ	1.472kΩ
35	CIP-49 wrt PO18		1.47 kΩ±2%	1.471kΩ	1.471kΩ
Issue EGC ACC ON Cmd (Apply 28V at CIP-28 wrt CIP-29)					
Issue PSOM 4 error signal ON Cmd (Apply 28V at CIP-47 wrt CIP-18)					
36	CIP-49 wrt PO23	+5V & ST.MON	1.47 kΩ±2%	1.472kΩ	1.472kΩ
37	CIP-49 wrt PO24		1.47 kΩ±2%	1.473kΩ	1.473kΩ
38	CIP-49 wrt PO25		1.47 kΩ±2%	1.472kΩ	1.472kΩ
Issue PSOM 4 error signal OFF Cmds (Apply 28V at CIP-47 wrt CIP-17 & 23)					
39	CIP-49 wrt RO23	+5V & ST.MON	1.47 kΩ±2%	1.472kΩ	1.472kΩ
40	CIP-49 wrt RO24		1.47 kΩ±2%	1.472kΩ	1.472kΩ
41	CIP-49 wrt RO25		1.47 kΩ±2%	1.472kΩ	1.473kΩ
42	PO-1 wrt RO-1	PSOM 4 power cutoff cmd	500-800mΩ	581mΩ	574mΩ
43	PO-2 wrt RO-2	PSOM 5 power cutoff cmd	450-750mΩ	553mΩ	546mΩ
44	PO-7 wrt RO-20	PS1 TVC ACT power INT	<250mΩ	121mΩ	122mΩ
45	RO-7 wrt PO-20	PS1 TVC ACT power INT	<250mΩ	118mΩ	119mΩ
46	PO-9 wrt RO-9	PSOM 4 SITVC error signal	200-450mΩ	259mΩ	257mΩ
47	PO-10 wrt RO-10	PSOM 5 SITVC error signal	300-600mΩ	381mΩ	376mΩ
48	PO-12 wrt RO 12	EGC ACC	<200mΩ	59mΩ	61mΩ
49	PO-13 wrt RO 13	EGC ACC	<200mΩ	75mΩ	73mΩ
50	PO-11 wrt RO 22	PS1 RCT STOP	<200mΩ	100mΩ	101mΩ
51	RO-11 wrt PO 22	PS1 RCT STOP	<200mΩ	124mΩ	124mΩ
52	CIP-47 wrt MP-1 to 42	Relay coil & contact	>100MΩ	>100MΩ	>100MΩ

53	CIP-47 wrt PO-1 to 25	Relay coil & contact	>100MΩ	>100MΩ	>100MΩ
54	CIP-47 wrt RO-1 to 25	Relay coil & contact	>100MΩ	>100MΩ	>100MΩ
55	CIP-47 wrt CIR-47	Coil Input-P wrt Coil input-R	>100MΩ	>100MΩ	>100MΩ
56	CIR-47 wrt CIP-47	Coil Input-R wrt Coil input-P	>100MΩ	>100MΩ	>100MΩ
57	CIP-47 wrt CIP-48	Coil Input-P wrt Contact input-P	>100MΩ	>100MΩ	>100MΩ
58	CIP-47 wrt CIR-48	Coil Input-P wrt Contact input-R	>100MΩ	>100MΩ	>100MΩ
59	CIP-47 wrt CIP-34	Coil Input-P wrt Dry Cmds Contact	>100MΩ	>100MΩ	>100MΩ
60	CIP-47 wrt CIP-35		>100MΩ	>100MΩ	>100MΩ
61	CIP-47 wrt CIP-37		>100MΩ	>100MΩ	>100MΩ
62	CIP-47 wrt CIP-40		>100MΩ	>100MΩ	>100MΩ
63	CIP-47 wrt CIP-42		>100MΩ	>100MΩ	>100MΩ
64	CIP-47 wrt CIP-43		>100MΩ	>100MΩ	>100MΩ
65	CIP-47 wrt CIP-49	Coil Input-P wrt INST Live	>100MΩ	>100MΩ	>100MΩ
66	CIP-47 wrt CIP-50	Coil Input-P wrt INST Rtn	>100MΩ	>100MΩ	>100MΩ
67	CIR-47 wrt CIP-34	Coil Input-R wrt Dry Cmds Contact	>100MΩ	>100MΩ	>100MΩ
68	CIR-47 wrt CIP-35		>100MΩ	>100MΩ	>100MΩ
69	CIR-47 wrt CIP-37		>100MΩ	>100MΩ	>100MΩ
70	CIR-47 wrt CIP-40		>100MΩ	>100MΩ	>100MΩ
71	CIR-47 wrt CIP-42		>100MΩ	>100MΩ	>100MΩ
72	CIR-47 wrt CIP-43		>100MΩ	>100MΩ	>100MΩ
73	CIR-47 wrt PO-1 to 25	Coil Input-R wrt functional outputs-P	>100MΩ	>100MΩ	>100MΩ
74	CIR-47 wrt RO-1 to 25	Coil Input-R wrt functional outputs-R	>100MΩ	>100MΩ	>100MΩ
75	CIR-47 wrt MP-1 to 42	Coil Input-R wrt command midpoints	>100MΩ	>100MΩ	>100MΩ
76	CIR-47 wrt CIP-49	Coil Input-R wrt INST Live	>100MΩ	>100MΩ	>100MΩ
77	CIR-47 wrt CIP-50	Coil Input-R wrt INST Rtn	>100MΩ	>100MΩ	>100MΩ
78	CIP-48 wrt CIP-47	Contact input-P wrt Coil input-P	>100MΩ	>100MΩ	>100MΩ
79	CIP-48 wrt CIR-47	Contact input-P wrt Coil input-R	>100MΩ	>100MΩ	>100MΩ
80	CIP-48 wrt CIR-48	Contact input-P wrt Contact input-R	>100MΩ	>100MΩ	>100MΩ
81	CIP-48 wrt CIP-34	Contact input-P wrt Dry Cmds Contact	>100MΩ	>100MΩ	>100MΩ
82	CIP-48 wrt CIP-35		>100MΩ	>100MΩ	>100MΩ
83	CIP-48 wrt CIP-37		>100MΩ	>100MΩ	>100MΩ
84	CIP-48 wrt CIP-40		>100MΩ	>100MΩ	>100MΩ
85	CIP-48 wrt CIP-42		>100MΩ	>100MΩ	>100MΩ
86	CIP-48 wrt CIP-43		>100MΩ	>100MΩ	>100MΩ
87	CIP-48 wrt CIP-49	Contact Input-P wrt INST Live	>100MΩ	>100MΩ	>100MΩ
88	CIP-48 wrt CIP-50	Contact Input-P wrt INST Rtn	>100MΩ	>100MΩ	>100MΩ
89	CIR-48 wrt CIP-34	Contact input-R wrt Dry Cmds Contact	>100MΩ	>100MΩ	>100MΩ
90	CIR-48 wrt CIP-35		>100MΩ	>100MΩ	>100MΩ
91	CIR-48 wrt CIP-37		>100MΩ	>100MΩ	>100MΩ
92	CIR-48 wrt CIP-40		>100MΩ	>100MΩ	>100MΩ
93	CIR-48 wrt CIP-42		>100MΩ	>100MΩ	>100MΩ
94	CIR-48 wrt CIP-43		>100MΩ	>100MΩ	>100MΩ
95	CIR-48 wrt CIP-49	Contact Input-R wrt INST Live	>100MΩ	>100MΩ	>100MΩ
96	CIR-48 wrt CIP-50	Contact Input-R wrt INST Rtn	>100MΩ	>100MΩ	>100MΩ
97	CIR-48 wrt CIP-47	Contact input-R wrt Coil input-P	>100MΩ	>100MΩ	>100MΩ
98	CIR-48 wrt CIR-47	Contact input-R wrt Coil input-R	>100MΩ	>100MΩ	>100MΩ
99	CIR-48 wrt CIP-48	Contact input-R wrt Contact input-P	>100MΩ	>100MΩ	>100MΩ
100	CIP-49 wrt CIP-34	INST LIVE wrt Dry Cmds Contact	>100MΩ	>100MΩ	>100MΩ
101	CIP-49 wrt CIP-35		>100MΩ	>100MΩ	>100MΩ
102	CIP-49 wrt CIP-37		>100MΩ	>100MΩ	>100MΩ
103	CIP-49 wrt CIP-40		>100MΩ	>100MΩ	>100MΩ
104	CIP-49 wrt CIP-42		>100MΩ	>100MΩ	>100MΩ
105	CIP-49 wrt CIP-43		>100MΩ	>100MΩ	>100MΩ
106	CIP-34 wrt CIP-35,	Dry Cmds Contacts	>100MΩ	>100MΩ	>100MΩ

	37,40,42,43,45			
107	CIP-35 wrt CIP-37, 40,42,43,45		>100MΩ	>100MΩ
108	CIP-37 wrt CIP- 40,42, 43,45		>100MΩ	>100MΩ
109	CIP-40 wrt CIP- 42, 43, 45		>100MΩ	>100MΩ
110	CIP-42 wrt CIP- 43, 45		>100MΩ	>100MΩ
111	CIP-43 wrt CIP- 45		>100MΩ	>100MΩ
112	All pins with respect to chassis		>100MΩ	>100MΩ

**BAT - RTN CARD** **List of Connectors**  
**1.CIP,CIR=50 pin Female 2.RO,PO=25 pin Female,MP=44 pin Female**

S1 NO	PIN DETAILS	DESCRIPTION	EXPECTED	OBSERVATION	
				ISRC	FSRC
1	PB_R-A wrt B	BAT (-)/SQB_P	<100mΩ	11mΩ	12mΩ
2	PB_R-A wrt C	BAT (-)/SQB_P	<100mΩ	3mΩ	8mΩ
3	PB_R-A wrt D	BAT (-)/SQB_P	<100mΩ	15mΩ	17mΩ
4	PB_R-A wrt E	BAT (-)/SQB_P	<100mΩ	7mΩ	16mΩ
5	PB_R-A wrt F	BAT (-)/SQB_P	<100mΩ	14mΩ	11mΩ
6	PB_R-A wrt G	BAT (-)/SQB_P	<100mΩ	9mΩ	11mΩ
7	PB_R-A wrt H	BAT (-)/SQB_P	<100mΩ	4mΩ	5mΩ
8	PB_R-A wrt J	BAT (-)/SQB_P	<100mΩ	10mΩ	10mΩ
9	RB_R-A wrt B	BAT (-)/SQB_R	<100mΩ	5mΩ	4mΩ
10	RB_R-A wrt C	BAT (-)/SQB_R	<100mΩ	14mΩ	7mΩ
11	RB_R-A wrt D	BAT (-)/SQB_R	<100mΩ	30mΩ	24mΩ
12	RB_R-A wrt E	BAT (-)/SQB_R	<100mΩ	26mΩ	5mΩ
13	RB_R-A wrt F	BAT (-)/SQB_R	<100mΩ	11mΩ	5mΩ
14	RB_R-A wrt G	BAT (-)/SQB_R	<100mΩ	8mΩ	5mΩ
15	RB_R-A wrt H	BAT (-)/SQB_R	<100mΩ	15mΩ	13mΩ
16	RB_R-A wrt J	BAT (-)/SQB_R	<100mΩ	15mΩ	9mΩ
17	PB_R-A wrt CHASSIS	BAT (-)/SQB_P wrt CHASSIS	1 kΩ± 2 %	1.000kΩ	1.000kΩ
18	RB_R-A wrt CHASSIS	BAT (-)/SQB_R wrt CHASSIS	1 kΩ± 2 %	1.000kΩ	1.000kΩ
19	PB_R-K wrt RB_R-K	IP CON.MAT_P wrt IP CON.MAT_R	<100mΩ	14mΩ	13mΩ
20	MONOP-3 wrt 7	BAT ALL OFF	<100mΩ	83mΩ	63mΩ