

ABNORMAL TEST RESULT

OF MODEL CDS4004828

1. Did Cheese Cloth or Paper Glow?

No.

2. Did Ground Fuse Open?

No.

3. Dielectric breakdown?

No.

4. Other Results?

See the following pages .

(FMEA : 2/26 ~ 25/26)

(Abnormal Test Result: 26/26 ~ 26/26)

There was no emission of flame, molten metal, ignition of cheesecloth, dielectric breakdown, opening of the ground fuse, other indication of a shock or fire hazard.

F M E A

Component	Mode	Comment	Output Voltage (V)
C11	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	0[V]
C12	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	0[V]
C13	Open	Normal operation.	
	Short	Normal operation.	
C14	Open	Normal operation.	
	Short	Normal operation.	
C15	Open	External Fuse opened, No Hazard.	0[V]
	Short	Normal operation.	
C17	Open	Normal operation.	
	Short	No Hazard.	0[V]
C51	Open	Normal operation.	
	Short	Normal operation.	
C52	Open	Normal operation.	
	Short	Normal operation.	
C53	Open	Normal operation.	
	Short	No Hazard.	0[V]
C54	Open	Normal operation.	
	Short	No Hazard.	0[V]
C55	Open	Normal operation.	
	Short	No Hazard.	0[V]
C59	Open	Normal operation.	
	Short	See 26 Page.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C60	Open	Normal operation.	
	Short	See 26 Page.	
C101	Open	No Hazard.	0[V]
	Short	No Hazard.	0[V]
C104	Open	Normal operation.	
	Short	Normal operation.	
C105	Open	Normal operation.	
	Short	No Hazard.	0[V]
C106	Open	Normal operation.	
	Short	No Hazard.	0[V]
C107	Open	Normal operation.	
	Short	No Hazard.	0[V]
C108	Open	Normal operation.	
	Short	Normal operation.	
C109	Open	Normal operation.	
	Short	Normal operation.	
C110	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C111	Open	Normal operation.	
	Short	Normal operation.	
C112	Open	Normal operation.	
	Short	Normal operation.	
C113	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C114	Open	Output voltage decreased. No hazard.	
	Short	Normal operation.	
C115	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C116	Open	Normal operation.	
	Short	Normal operation.	
C117	Open	Normal operation.	
	Short	Normal operation.	
C118	Open	Normal operation.	
	Short	Normal operation.	
C119	Open	Output voltage decreased. No hazard.	
	Short	Output voltage decreased. No hazard.	
C120	Open	Normal operation.	
	Short	No Hazard.	0[V]
C125	Open	Normal operation.	
	Short	No Hazard.	0[V]
C501	Open	Normal operation.	
	Short	See 26 Page.	
C502	Open	Normal operation.	
	Short	Normal operation.	
C503	Open	Normal operation.	
	Short	Normal operation.	
C504	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C505	Open	Normal operation.	
	Short	Normal operation.	
C506	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C507	Open	Normal operation.	
	Short	Normal operation.	
C508	Open	Normal operation.	
	Short	Normal operation.	
C509	Open	Normal operation.	
	Short	No Hazard.	0[V]
C510	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C511	Open	Normal operation.	
	Short	Normal operation.	
C512	Open	Normal operation.	
	Short	See 26 Page.	
C513	Open	Normal operation.	
	Short	Normal operation.	
C514	Open	Normal operation.	
	Short	No Hazard.	0[V]
C515	Open	Normal operation.	
	Short	Normal operation.	
C516	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C517	Open	Normal operation.	
	Short	Normal operation.	
C518	Open	Normal operation.	
	Short	Normal operation.	
C519	Open	Normal operation.	
	Short	Normal operation.	
C520	Open	Normal operation.	
	Short	Normal operation.	
C521	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C522	Open	Normal operation.	
	Short	No Hazard.	0[V]
C523	Open	Normal operation.	
	Short	Normal operation.	
C524	Open	Normal operation.	
	Short	Normal operation.	
C525	Open	Normal operation.	
	Short	Normal operation.	
C526	Open	Normal operation.	
	Short	Normal operation.	
C527	Open	Normal operation.	
	Short	Normal operation.	
C528	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C529	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
C530	Open	Normal operation.	
	Short	Output voltage increased. No hazard.	
C531	Open	Normal operation.	
	Short	Normal operation.	
C532	Open	Normal operation.	
	Short	Normal operation.	
C533	Open	Normal operation.	
	Short	Normal operation.	
D51	Open	Normal operation.	
	Short	Normal operation.	
D101	Open	Normal operation.	
	Short	Normal operation.	
D102	Open	Normal operation.	
	Short	Normal operation.	
D104	Open	Output voltage decreased. No hazard.	
	Short	Output voltage decreased. No hazard.	
D105	Open	Normal operation.	
	Short	No Hazard.	0[V]
D106	Open	Normal operation.	
	Short	No Hazard.	0[V]
D107	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)	
D108	Open	Normal operation.		
	Short	Normal operation.		
D502	Open	Normal operation.		
	Short	Normal operation.		
D503	Open	No Hazard.	0[V]	
	Short	No Hazard.	0[V]	
D504	Open	No Hazard.	0[V]	
	Short	Normal operation.		
D505	Open	Normal operation.		
	Short	Normal operation.		
D506	Open	Normal operation.		
	Short	Normal operation.		
D507	Open	Normal operation.		
	Short	Normal operation.		
D508	Open	Normal operation.		
	Short	Normal operation.		
D509	Open	No Hazard.	0[V]	
	Short	Normal operation.		
IC101	Open	1	No Hazard.	0[V]
		2	No Hazard.	0[V]
		3	External Fuse opened, No Hazard.	0[V]
		4	Normal operation.	
		5	Normal operation.	
		6	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)	
IC101	Open	7	No Hazard.	0[V]	
		8	Normal operation.		
		9	Normal operation.		
		10	No Hazard.	0[V]	
		11	No Hazard.	0[V]	
		12	Output voltage decreased. No hazard.		
		13	Output voltage decreased. No hazard.		
		14	Normal operation.		
		15	Normal operation.		
		16	Normal operation.		
		17	Output voltage decreased. No hazard.		
		18	Normal operation.		
		19	No Hazard.	0[V]	
		20	No Hazard.	0[V]	
		Short	1-2	See 26 Page.	
			2-3	No Hazard.	0[V]
			3-4	Normal operation.	
			4-5	Normal operation.	
			5-6	Normal operation.	
			6-7	Normal operation.	
		7-8	Normal operation.		
		8-9	Normal operation.		
		9-10	No Hazard.	0[V]	
	11-12	No Hazard.	0[V]		

F M E A

Component	Mode		Comment	Output Voltage (V)
IC101	Short	12-13	No Hazard.	0[V]
		13-14	Normal operation.	
		14-15	Normal operation.	
		15-16	Normal operation.	
		16-17	Normal operation.	
		17-18	Normal operation.	
		18-19	Normal operation.	
		19-20	No Hazard.	0[V]
IC501	Open	1	Output voltage increased. No hazard.	
		2	Output voltage increased. No hazard.	
		3	Normal operation.	
		4	No Hazard.	0[V]
		5	No Hazard.	0[V]
		6	No Hazard.	0[V]
		7	No Hazard.	0[V]
		8	No Hazard.	0[V]
	Short	1-2	Output voltage increased. No hazard.	
		2-3	Normal operation.	
		3-4	Output voltage increased. No hazard.	
		5-6	No Hazard.	0[V]
		6-7	No Hazard.	0[V]
		7-8	No Hazard.	0[V]
IC502	Open	K	No Hazard.	0[V]
		A	No Hazard.	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
IC502	Open	R	No Hazard.	0[V]
	Short	A-K	No Hazard.	0[V]
		K-R	Normal operation.	
		R-A	No Hazard.	0[V]
L11	Open		No Hazard.	0[V]
	Short		Normal operation.	
L51	Open		No Hazard.	0[V]
	Short		Output voltage decreased. No hazard.	
PC101	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	No Hazard.	0[V]
PC102	Open	A, K	No Hazard.	0[V]
		Vo, GND	No Hazard.	0[V]
		Vcc	No Hazard.	0[V]
	Short	A-K	No Hazard.	0[V]
		Vo-GND	No Hazard.	0[V]
		Vcc-GND	No Hazard.	0[V]
PC501	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	No Hazard.	0[V]
SS51	Open		See 26 Page.	
	Short		Output voltage decreased. No hazard.	

F M E A

Component	Mode		Comment	Output Voltage (V)
SS52	Open		See 26 Page.	
	Short		Output voltage decreased. No hazard.	
SS53	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	
SS54	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	
SS55	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	
SS101	Open	IC101 2 side	Normal operation.	
	Short	IC101 2 side	Normal operation.	
	Open	IC101 4 side	Normal operation.	
	Short	IC101 4 side	Normal operation.	
SS104	Open		Normal operation.	
	Short		No Hazard.	0[V]
SS502	Open	R525 side	Normal operation.	
		R534 side	Normal operation.	
	Short	R525 side	Normal operation.	
		R534 side	Normal operation.	
SS503	Open	-S side	No Hazard.	0[V]
		c518 side	No Hazard.	0[V]
	Short	-S side	Normal operation.	
		-S side	Normal operation.	
T11	Open	1	No Hazard.	0[V]
		4	No Hazard.	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
T11	Open	5	No Hazard.	0[V]
		7	No Hazard.	0[V]
	Short	1-4	External Fuse opened, No Hazard.	0[V]
		5-7	External Fuse opened, No Hazard.	0[V]
T12	Open	7	No Hazard.	0[V]
		8	No Hazard.	0[V]
		1	Normal operation.	
		3	Normal operation.	
	Short	7-8	Normal operation.	
		1-3	Normal operation.	
T101	Open	1or3	No Hazard.	0[V]
		2or4	No Hazard.	0[V]
		5or6	No Hazard.	0[V]
	Short	1-3	No Hazard.	0[V]
		2-4	No Hazard.	0[V]
		5-6	No Hazard.	0[V]
TH51	Open		Normal operation.	
	Short		No Hazard.	0[V]
TR11	Open	D	See 26 Page.	
		S	See 26 Page.	
		G	See 26 Page.	0[V]
	Short	D-S	See 26 Page.	0[V]
		S-G	See 26 Page.	0[V]
		G-D	See 26 Page.	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
TR12	Open	D	See 26 Page.	
		S	See 26 Page.	
		G	See 26 Page.	0[V]
	Short	D-S	See 26 Page.	0[V]
		S-G	See 26 Page.	0[V]
		G-D	See 26 Page.	0[V]
TR13	Open	C	Normal operation.	
		E	External Fuse opened, No Hazard.	0[V]
		B	External Fuse opened, No Hazard.	0[V]
	Short	C-E	No Hazard.	0[V]
		E-B	Normal operation.	
		B-C	No Hazard.	0[V]
TR14	Open	C	Normal operation.	
		E	No Hazard.	0[V]
		B	No Hazard.	0[V]
	Short	C-E	No Hazard.	0[V]
		E-B	Normal operation.	
		B-C	External Fuse opened, No Hazard.	0[V]
TR101	Open	D	No Hazard.	0[V]
		S	No Hazard.	0[V]
		G	No Hazard.	0[V]
	Short	D-S	No Hazard.	0[V]
		S-G	No Hazard.	0[V]
		G-D	No Hazard.	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
TR102	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	0[V]
		E-B	Normal operation.	
		B-C	No Hazard.	0[V]
TR103	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Output voltage decreased. No hazard.	
		E-B	Normal operation.	
		B-C	Output voltage decreased. No hazard.	
TR104	Open	D	Normal operation.	
		S	Normal operation.	
		G	See 26 Page.	
	Short	D-S	See 26 Page.	
		S-G	Normal operation.	
		G-D	See 26 Page.	
TR105	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR106	Open	C	Output voltage decreased. No hazard.	
		E	Output voltage decreased. No hazard.	
		B	Output voltage decreased. No hazard.	
	Short	C-E	Normal operation.	
		E-B	Output voltage decreased. No hazard.	
		B-C	Normal operation.	
TR108	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR501	Open	C	No Hazard.	0[V]
		E	No Hazard.	0[V]
		B	No Hazard.	0[V]
	Short	C-E	Normal operation.	
		E-B	No Hazard.	0[V]
		B-C	Normal operation.	
TR502	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	0[V]
		E-B	Normal operation.	
		B-C	No Hazard.	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
TR503	Open	C	Output voltage increased. No hazard.	
		E	Output voltage increased. No hazard.	
		B	Output voltage increased. No hazard.	
	Short	C-E	Output voltage decreased. No hazard.	
		E-B	Output voltage increased. No hazard.	
		B-C	Output voltage decreased. No hazard.	
TR504	Open	C	Normal operation.	
		E	Output voltage decreased. No hazard.	
		B	Output voltage decreased. No hazard.	
	Short	C-E	Output voltage increased. No hazard.	
		E-B	Output voltage increased. No hazard.	
		B-C	Normal operation.	
TR505	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR506	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	0[V]
		E-B	Normal operation.	
		B-C	No Hazard.	0[V]

F M E A

Component	Mode		Comment	Output Voltage (V)
TR507	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	
TR508	Open	D	Output voltage increased. No hazard.	
		S	Output voltage increased. No hazard.	
		G	Output voltage decreased. No hazard.	
	Short	D-S	Output voltage decreased. No hazard.	
		S-G	Output voltage decreased. No hazard.	
		G-D	Output voltage decreased. No hazard.	
TR509	Open	C	No Hazard.	0[V]
		E	No Hazard.	0[V]
		B	No Hazard.	0[V]
	Short	C-E	Normal operation.	
		E-B	No Hazard.	0[V]
		B-C	Normal operation.	
TR510	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	Normal operation.	
		E-B	Normal operation.	
		B-C	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
VR101	Open	brush	Normal operation.
			Normal operation.
ZD11	Open	Normal operation.	
	Short	No Hazard.	0[V]
ZD12	Open	Normal operation.	
	Short	Normal operation.	
ZD51	Open	Normal operation.	
	Short	Normal operation.	
ZD52	Open	Normal operation.	
	Short	Normal operation.	
ZD53	Open	Normal operation.	
	Short	Normal operation.	
ZD54	Open	Normal operation.	
	Short	Normal operation.	
ZD55	Open	Normal operation.	
	Short	Normal operation.	
ZD56	Open	Normal operation.	
	Short	Normal operation.	
ZD57	Open	Normal operation.	
	Short	Normal operation.	
ZD58	Open	Normal operation.	
	Short	Normal operation.	
ZD101	Open	Normal operation.	
	Short	No Hazard.	0[V]

F M E A

Component	Mode	Comment	Output Voltage (V)
ZD102	Open	Normal operation.	
	Short	No Hazard.	0[V]
ZD103	Open	Normal operation.	
	Short	No Hazard.	0[V]
ZD106	Open	Normal operation.	
	Short	No Hazard.	0[V]
ZD501	Open	Normal operation.	
	Short	No Hazard.	0[V]
ZD502	Open	Normal operation.	
	Short	Normal operation.	
ZD504	Open	Normal operation.	
	Short	Output voltage decreased. No hazard.	
ZD505	Open	Normal operation.	
	Short	Normal operation.	
ZD506	Open	Normal operation.	
	Short	No Hazard.	0[V]
R11	Open	Normal operation.	
R12	Open	Normal operation.	
R14	Open	External Fuse opened, No Hazard.	0[V]
R15	Open	External Fuse opened, No Hazard.	0[V]
R16	Open	Normal operation.	
R51	Open	Normal operation.	
R52	Open	Normal operation.	
R53	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R54	Open	Normal operation.	
R59	Open	Normal operation.	
R60	Open	Normal operation.	
R61	Open	Normal operation.	
R101	Open	No Hazard.	0[V]
R103	Open	Normal operation.	
R104	Open	Normal operation.	
R105	Open	Normal operation.	
R106	Open	Normal operation.	
R107	Open	Normal operation.	
R108	Open	Normal operation.	
R109	Open	No Hazard.	0[V]
R110	Open	Normal operation.	
R111	Open	Normal operation.	
R113	Open	Normal operation.	
R114	Open	Output voltage decreased. No hazard.	
R115	Open	No Hazard.	0[V]
R116	Open	Normal operation.	
R117	Open	Normal operation.	
R118	Open	Normal operation.	
R119	Open	Normal operation.	
R120	Open	Normal operation.	
R121	Open	No Hazard.	0[V]
R122	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R123	Open	Normal operation.	
R124	Open	Normal operation.	
R125	Open	Normal operation.	
R126	Open	Output voltage decreased. No hazard.	
R127	Open	Output voltage decreased. No hazard.	
R128	Open	Normal operation.	
R129	Open	Normal operation.	
R130	Open	Normal operation.	
R131	Open	No Hazard.	0[V]
R132	Open	No Hazard.	0[V]
R133	Open	Normal operation.	
R134	Open	No Hazard.	0[V]
R136	Open	Normal operation.	
R137	Open	No Hazard.	0[V]
R138	Open	Normal operation.	
R139	Open	Normal operation.	
R140	Open	Normal operation.	
R141	Open	Normal operation.	
R142	Open	Normal operation.	
R143	Open	Output voltage decreased. No hazard.	
R144	Open	Normal operation.	
R145	Open	Normal operation.	
R146	Open	External Fuse opened, No Hazard.	0[V]
R147	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R148	Open	No Hazard.	0[V]
R149	Open	Normal operation.	
R150	Open	Normal operation.	
R151	Open	Normal operation.	
R153	Open	Normal operation.	
R501	Open	Normal operation.	
R502	Open	Normal operation.	
R503	Open	Normal operation.	
R504	Open	No Hazard.	0[V]
R505	Open	Normal operation.	
R506	Open	No Hazard.	0[V]
R507	Open	Normal operation.	
R508	Open	Normal operation.	
R509	Open	Normal operation.	
R510	Open	Normal operation.	
R511	Open	Normal operation.	
R512	Open	No Hazard.	0[V]
R514	Open	No Hazard.	0[V]
R515	Open	Normal operation.	
R516	Open	No Hazard.	0[V]
R517	Open	Normal operation.	
R518	Open	No Hazard.	0[V]
R519	Open	Normal operation.	
R520	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R521	Open	Normal operation.	
R522	Open	Normal operation.	
R523	Open	Output voltage increased. No hazard.	
R524	Open	Output voltage increased. No hazard.	
R525	Open	Normal operation.	
R526	Open	Normal operation.	
R527	Open	Normal operation.	
R528	Open	Output voltage decreased. No hazard.	
R529	Open	Normal operation.	
R530	Open	No Hazard.	0[V]
R531	Open	Normal operation.	
R532	Open	Normal operation.	
R533	Open	Normal operation.	
R534	Open	Normal operation.	
R535	Open	Normal operation.	
R536	Open	No Hazard.	0[V]
R537	Open	No Hazard.	0[V]
R538	Open	No Hazard.	0[V]
R539	Open	No Hazard.	0[V]
R540	Open	No Hazard.	0[V]
R541	Open	Normal operation.	
R542	Open	Normal operation.	
R543	Open	Normal operation.	
R544	Open	No Hazard.	0[V]

F M E A

Component	Mode	Comment	Output Voltage (V)
R545	Open	No Hazard.	0[V]
R546	Open	Normal operation.	
R547	Open	Normal operation.	
R548	Open	Normal operation.	
R549	Open	Output voltage increased. No hazard.	
R550	Open	Normal operation.	
R551	Open	Normal operation.	
R552	Open	Normal operation.	
R554	Open	No Hazard.	0[V]
R555	Open	Normal operation.	
R556	Open	Normal operation.	
R557	Open	Normal operation.	
R558	Open	Normal operation.	
R559	Open	Normal operation.	
R560	Open	Normal operation.	
R561	Open	Normal operation.	
R562	Open	No Hazard.	0[V]
R563	Open	No Hazard.	0[V]
R565	Open	Normal operation.	
R566	Open	No Hazard.	0[V]
R567	Open	Normal operation.	
R568	Open	Normal operation.	
R569	Open	Normal operation.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C59	Short		No Hazard.	0[V]
C60	Short		Normal operation.	
C501	Short		Output voltage decreased. No hazard.	
C512	Short		Output voltage decreased. No hazard.	
IC101	Short	1-2	No Hazard.	0[V]
SS51	Open		Normal operation.	
SS52	Open		Normal operation.	
TR11	Open	D	External Fuse opened, No Hazard.	0[V]
		S	External Fuse opened, No Hazard.	0[V]
		G	External Fuse opened, No Hazard.	0[V]
	Short	D-S	External Fuse opened, No Hazard.	0[V]
		S-G	No Hazard.	0[V]
		G-D	External Fuse opened, No Hazard.	0[V]
TR12	Open	D	External Fuse opened, No Hazard.	0[V]
		S	External Fuse opened, No Hazard.	0[V]
		G	External Fuse opened, No Hazard.	0[V]
	Short	D-S	External Fuse opened, No Hazard.	0[V]
		S-G	No Hazard.	0[V]
		G-D	External Fuse opened, No Hazard.	0[V]
TR104	Open	G	Normal operation.	
	Short	D-S	Normal operation.	
		G-D	Normal operation.	