



ABNORMAL TEST RESULT

OF MODEL PJMA1000F

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 : 2/41 ~ 37/41)
(Abnormal Test Result: 38/41 ~ 41/41)

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)
C101	Open	Normal operation	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C102	Open	Normal operation	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C105	Open	Normal operation	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C106	Open	No Hazard.	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C107	Open	No Hazard.	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C108	Open	No Hazard.	AVR1:*
	Short	F101, F102 opened, No hazard.	AVR1:0
C109	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C110	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
C112	Open	No Hazard.	AVR1:0
	Short	See page 38.	
C114	Open	Normal operation	AVR1:*
	Short	See page 38.	
C115	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
C116	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C117	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C118	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
C119	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	F101, F102 opened, No hazard.	AVR1:0
C120	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C122	Open	No Hazard.	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
C123	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C125	Open	Normal operation	AVR1:*
	Short	See page 38.	
C130	Open	Normal operation	AVR1:*
	Short	See page 38.	
C131	Open	Normal operation	AVR1:*
	Short	See page 38.	
C132	Open	Normal operation	AVR1:*
	Short	See page 38.	
C134	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C135	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C136	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C137	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C139	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C140	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C141	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C142	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C143	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C144	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C170	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
C171	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
C172	Open	Normal operation	AVR1:*
	Short	See page 38.	
C173	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C180	Open	Normal operation	AVR1:*
	Short	See page 38.	
C181	Open	R180, R181 opened, No hazard.	AVR1:0
	Short	R180, R181 opened, No hazard.	AVR1:0
C182	Open	R180, R181 opened, No hazard.	AVR1:0
	Short	Normal operation	AVR1:*
C183	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
C201	Open	Normal operation	AVR1:*
	Short	See page 38.	
C202	Open	Normal operation	
	Short	See page 38.	
C203	Open	Normal operation	AVR1:*
	Short	See page 38.	
C204	Open	Normal operation	AVR1:*
	Short	See page 38.	
C205	Open	Normal operation	AVR1:*
	Short	See page 38.	
C206	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
C207	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C208	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C209	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
C211	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C213	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C214	Open	Normal operation	AVR1:*
	Short	See page 38.	
C215	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C230	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C231	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C250	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C251	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C252	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C253	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C270	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C271	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C272	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C273	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C275	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C276	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C501	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C502	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C503	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C504	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C507	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C508	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C511 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C512 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C513 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C514 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C515	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C516	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C517 (Only:-12, -24)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C518 (Only:-12, -24)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C519	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C520	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C523	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C524	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C542 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C543 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C550	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C551	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C582 (Only:-48)	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
C591	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C592	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C593	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C594	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C595	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C596	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C597 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C598 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
C601	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C602	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C606	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C607	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
C608	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C610 (Only:-36)	Open	Normal operation	AVR1:*
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C701	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C702	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C704	Open	No Hazard.	AVR1:*
	Short	See page 38.	
C705	Open	No Hazard.	AVR1:*
	Short	See page 38.	
C706	Open	No Hazard.	AVR1:*
	Short	See page 38.	
C707	Open	No Hazard.	AVR1:*
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C708	Open	No Hazard.	AVR1:*
	Short	See page 38.	
C710	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
C711	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D101	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D102	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D103	Open	See page 38.	
	Short	Normal operation	AVR1:*
D104	Open	See page 38.	
	Short	Normal operation	AVR1:*
D105	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D106	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
D107	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
D108	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
D109	Open	R180, R181 opened, No hazard.	AVR1:0
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
D110	Open	Normal operation	AVR1:*
	Short	See page 38.	
D111	Open	F101, F102 opened, No hazard.	AVR1:0
	Short	F101, F102 opened, No hazard.	AVR1:0
D112	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D114	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D170	Open	No Hazard.	AVR1:0
	Short	Normal operation	AVR1:*
D171	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D180	Open	R180, R181 opened, No hazard.	AVR1:0
	Short	Normal operation	AVR1:*
D181	Open	R180, R181 opened, No hazard.	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:*
D201	Open	Normal operation	AVR1:*
	Short	See page 38.	
D202	Open	Normal operation	AVR1:*
	Short	See page 38.	
D203	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D204	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
D205	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D206 (Except:-12)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D207	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
D208	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D211	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
D250	Open	No Hazard.	AVR1:0
	Short	Normal operation	AVR1:*
D251	Open	See page 38.	
	Short	Normal operation	AVR1:*
D252	Open	Normal operation	AVR1:*
	Short	See page 39.	
D270	Open	No Hazard.	AVR1:0
	Short	Normal operation	AVR1:*
D271	Open	See page 39.	
	Short	Normal operation	AVR1:*
D272	Open	Normal operation	AVR1:*
	Short	See page 39.	
D701	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
D703	Open		Normal operation	AVR1:*
	Short		No Hazard.	AVR1:0
FAN701	Open	1	See page 39.	
		2	See page 39.	
	Short	1-2	No Hazard.	AVR1:0
FAN702	Open	1	See page 39.	
		2	See page 39.	
	Short	1-2	No Hazard.	AVR1:0
IC101	Open	1	R180, R181 opened, No hazard.	AVR1:0
		2	R180, R181 opened, No hazard.	AVR1:0
		3	R180, R181 opened, No hazard.	AVR1:0
		4	R180, R181 opened, No hazard.	AVR1:0
		5	R180, R181 opened, No hazard.	AVR1:0
		6	R180, R181 opened, No hazard.	AVR1:0
		7	R180, R181 opened, No hazard.	AVR1:0
		8	R180, R181 opened, No hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	R180, R181 opened, No hazard.	AVR1:0
		3-4	R180, R181 opened, No hazard.	AVR1:0
		5-6	R180, R181 opened, No hazard.	AVR1:0
		6-7	R180, R181 opened, No hazard.	AVR1:0
		7-8	F101, F102 opened, No hazard.	AVR1:0
IC102	Open	2	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0



F M E A

Component		Mode	Comment	Output Voltage (V)
IC102	Open	5	Normal operation	AVR1:*
		6	Normal operation	AVR1:*
		7	No Hazard.	AVR1:*
	Short	5-6	Normal operation	AVR1:*
		6-7	Normal operation	AVR1:*
IC201	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	Normal operation	AVR1:*
		8	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	Normal operation	AVR1:*
		5-6	F101, F102 opened, No hazard.	AVR1:0
		6-7	Normal operation	AVR1:*
		7-8	No Hazard.	AVR1:0
IC501 (Only:-48)	Open	K	Normal operation	AVR1:*
		A	Normal operation	AVR1:*
		R	Normal operation	AVR1:*
	Short	A-K	No Hazard.	AVR1:0
		K-R	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC501 (Only:-48)	Short	R-A	Normal operation	AVR1:*
IC601	Open	K	No Hazard.	AVR1:0
		A	No Hazard.	AVR1:0
		R	No Hazard.	AVR1:0
	Short	A-K	Output voltage decreased. No hazard.	AVR1:decreased
		K-R	Output voltage decreased. No hazard.	AVR1:decreased
		R-A	No Hazard.	AVR1:0
IC701	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
L101	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
	Short	1-2	F101, F102 opened, No hazard.	AVR1:0
		2-3	Normal operation	AVR1:*
		3-4	F101, F102 opened, No hazard.	AVR1:0
L102	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
	Short	1-2	F101, F102 opened, No hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
L102	Short	2-3	Normal operation	AVR1:*
		3-4	F101, F102 opened, No hazard.	AVR1:0
L103	Open	1	R180, R181 opened, No hazard.	AVR1:0
		2	R180, R181 opened, No hazard.	AVR1:0
		3, 4, 5	No Hazard.	AVR1:0
		7, 8, 9	No Hazard.	AVR1:0
	Short	1-2	See page 39.	
		2-3, 4, 5	See page 39.	
	Open		See page 39.	
L104	Short		Normal operation	AVR1:*
	Open		Normal operation	AVR1:*
L113	Open		Normal operation	AVR1:*
	Short		Normal operation	AVR1:*
L114	Open		Normal operation	AVR1:*
	Short		Normal operation	AVR1:*
L115	Open		Normal operation	AVR1:*
	Short		Normal operation	AVR1:*
L205	Open		Normal operation	AVR1:*
	Short		Normal operation	AVR1:*
L517	Open	A	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4 only 24	No Hazard.	AVR1:0
		13 except 2	No Hazard.	AVR1:0
	Short	3-4	See page 39.	



F M E A

Component	Mode		Comment	Output Voltage (V)
L701	Open		No Hazard.	AVR1:0
	Short		Normal operation	AVR1:*
LED501	Open		Normal operation	AVR1:*
	Short		Normal operation	AVR1:*
PC201	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	No Hazard.	AVR1:0
PC202	Open	A, K	Normal operation	AVR1:*
		C, E	Normal operation	AVR1:*
	Short	A-K	Normal operation	AVR1:*
		C-E	No Hazard.	AVR1:0
PTH201	Open		No Hazard.	AVR1:0
	Short		Normal operation	AVR1:*
PTH202	Open		No Hazard.	AVR1:0
	Short		Normal operation	AVR1:*
R101	Open		Normal operation	AVR1:*
R102	Open		Normal operation	AVR1:*
R103	Open		Normal operation	AVR1:*
R104	Open		Normal operation	AVR1:*
R105	Open		Normal operation	AVR1:*
R106	Open		Normal operation	AVR1:*
R107	Open		Normal operation	AVR1:*
R108	Open		Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R109	Open	Normal operation	AVR1:*
R110	Open	No Hazard.	AVR1:0
R111	Open	No Hazard.	AVR1:0
R112	Open	No Hazard.	AVR1:0
R113	Open	Normal operation	AVR1:*
R114	Open	R180, R181 opened, No hazard.	AVR1:0
R115	Open	R180, R181 opened, No hazard.	AVR1:0
R116	Open	R180, R181 opened, No hazard.	AVR1:0
R117	Open	R180, R181 opened, No hazard.	AVR1:0
R118	Open	R180, R181 opened, No hazard.	AVR1:0
R119	Open	R180, R181 opened, No hazard.	AVR1:0
R120	Open	R180, R181 opened, No hazard.	AVR1:0
R121	Open	R180, R181 opened, No hazard.	AVR1:0
R122	Open	See page 39.	
R123	Open	Normal operation	AVR1:*
R124	Open	Normal operation	AVR1:*
R125	Open	Normal operation	AVR1:*
R126	Open	Normal operation	AVR1:*
R127	Open	Normal operation	AVR1:*
R128	Open	Normal operation	AVR1:*
R129	Open	Output voltage decreased. No hazard.	AVR1:decreased
R130	Open	R180, R181 opened, No hazard.	AVR1:0
R131	Open	R180, R181 opened, No hazard.	AVR1:0
R132	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R133	Open	R180, R181 opened, No hazard.	AVR1:0
R134	Open	Normal operation	AVR1:*
R135	Open	Normal operation	AVR1:*
R138	Open	Normal operation	AVR1:*
R139	Open	Normal operation	AVR1:*
R140	Open	Normal operation	AVR1:*
R141	Open	Normal operation	AVR1:*
R142	Open	Normal operation	AVR1:*
R143	Open	Normal operation	AVR1:*
R144	Open	Normal operation	AVR1:*
R145	Open	Normal operation	AVR1:*
R146	Open	R180, R181 opened, No hazard.	AVR1:0
R147	Open	R180, R181 opened, No hazard.	AVR1:0
R148	Open	R180, R181 opened, No hazard.	AVR1:0
R149	Open	R180, R181 opened, No hazard.	AVR1:0
R150	Open	R180, R181 opened, No hazard.	AVR1:0
R151	Open	R180, R181 opened, No hazard.	AVR1:0
R152	Open	See page 39.	
R153	Open	See page 39.	
R156	Open	Normal operation	AVR1:*
R157	Open	Normal operation	AVR1:*
R158	Open	Normal operation	AVR1:*
R159	Open	Normal operation	AVR1:*
R160	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R161	Open	R180, R181 opened, No hazard.	AVR1:*
R162	Open	R180, R181 opened, No hazard.	AVR1:*
R163	Open	R180, R181 opened, No hazard.	AVR1:*
R171	Open	No Hazard.	AVR1:0
R172	Open	No Hazard.	AVR1:0
R173	Open	No Hazard.	AVR1:0
R174	Open	No Hazard.	AVR1:0
R175	Open	Normal operation	AVR1:*
R176	Open	No Hazard.	AVR1:0
R177	Open	Normal operation	AVR1:*
R178	Open	No Hazard.	AVR1:0
R180	Open	Normal operation	AVR1:*
R181	Open	Normal operation	AVR1:*
R182	Open	Normal operation	AVR1:*
R183	Open	Normal operation	AVR1:*
R184	Open	Normal operation	AVR1:*
R185	Open	Normal operation	AVR1:*
R186	Open	R180, R181 opened, No hazard.	AVR1:0
R187	Open	R180, R181 opened, No hazard.	AVR1:0
R188	Open	R180, R181 opened, No hazard.	AVR1:0
R189	Open	R180, R181 opened, No hazard.	AVR1:0
R201	Open	Normal operation	AVR1:*
R202	Open	Normal operation	AVR1:*
R203	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R204	Open	Normal operation	AVR1:*
R205	Open	Normal operation	AVR1:*
R206	Open	Normal operation	AVR1:*
R207	Open	Normal operation	AVR1:*
R208	Open	Normal operation	AVR1:*
R209	Open	Normal operation	AVR1:*
R214	Open	Normal operation	AVR1:*
R215	Open	Normal operation	AVR1:*
R216	Open	Normal operation	AVR1:*
R219	Open	Normal operation	AVR1:*
R220	Open	Normal operation	AVR1:*
R223	Open	Normal operation	AVR1:*
R226	Open	No Hazard.	AVR1:0
R227	Open	No Hazard.	AVR1:0
R228	Open	Normal operation	AVR1:*
R230	Open	Output voltage decreased. No hazard.	AVR1:decreased
R231	Open	Normal operation	AVR1:*
R232 (Except:-12)	Open	Normal operation	AVR1:*
R234	Open	No Hazard.	AVR1:0
R235	Open	No Hazard.	AVR1:0
R236	Open	Normal operation	AVR1:*
R237	Open	Normal operation	AVR1:*
R238	Open	Normal operation	AVR1:*
R239	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R242	Open	See page 39.	
R243	Open	See page 39.	
R246	Open	Normal operation	AVR1:*
R248	Open	Normal operation	AVR1:*
R249	Open	Normal operation	AVR1:*
R250	Open	See page 39.	
R251	Open	No Hazard.	AVR1:0
R252	Open	No Hazard.	AVR1:0
R253	Open	See page 39.	
R254	Open	See page 39.	
R255	Open	Normal operation	AVR1:*
R257	Open	Normal operation	AVR1:*
R258	Open	Normal operation	AVR1:*
R259	Open	Normal operation	AVR1:*
R270	Open	See page 39.	
R271	Open	No Hazard.	AVR1:0
R272	Open	No Hazard.	AVR1:0
R273	Open	See page 39.	
R274	Open	See page 39.	
R275	Open	Normal operation	AVR1:*
R277	Open	Normal operation	AVR1:*
R278	Open	Normal operation	AVR1:*
R279	Open	Normal operation	AVR1:*
R281	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R290	Open	Normal operation	AVR1:*
R291	Open	Normal operation	AVR1:*
R292	Open	Normal operation	AVR1:*
R293	Open	Normal operation	AVR1:*
R294	Open	Normal operation	AVR1:*
R295	Open	Normal operation	AVR1:*
R296	Open	Normal operation	AVR1:*
R297	Open	Normal operation	AVR1:*
R501 (Only:-48)	Open	Normal operation	AVR1:*
R502 (Only:-48)	Open	Normal operation	AVR1:*
R503 (Only:-48)	Open	Normal operation	AVR1:*
R504 (Only:-48)	Open	Normal operation	AVR1:*
R505 (Only:-48)	Open	Normal operation	AVR1:*
R506 (Only:-48)	Open	Normal operation	AVR1:*
R507 (Only:-48)	Open	Normal operation	AVR1:*
R508 (Only:-48)	Open	Normal operation	AVR1:*
R509 (Only:-48)	Open	Normal operation	AVR1:*
R510 (Only:-48)	Open	Normal operation	AVR1:*
R511 (Only:-48)	Open	Normal operation	AVR1:*
R512 (Only:-48)	Open	Normal operation	AVR1:*
R513 (Only:-48)	Open	Normal operation	AVR1:*
R514 (Only:-48)	Open	Normal operation	AVR1:*
R515 (Only:-48)	Open	Normal operation	AVR1:*
R516 (Only:-48)	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R517	Open	Normal operation	AVR1:*
R518	Open	Normal operation	AVR1:*
R519	Open	Normal operation	AVR1:*
R520	Open	Normal operation	AVR1:*
R521	Open	Normal operation	AVR1:*
R522	Open	Normal operation	AVR1:*
R523	Open	Normal operation	AVR1:*
R524	Open	Normal operation	AVR1:*
R525	Open	Normal operation	AVR1:*
R526	Open	Normal operation	AVR1:*
R527	Open	Normal operation	AVR1:*
R528	Open	Normal operation	AVR1:*
R529	Open	Normal operation	AVR1:*
R530	Open	Normal operation	AVR1:*
R531	Open	Normal operation	AVR1:*
R532	Open	Normal operation	AVR1:*
R533	Open	Normal operation	AVR1:*
R534	Open	Normal operation	AVR1:*
R535	Open	Normal operation	AVR1:*
R536	Open	Normal operation	AVR1:*
R537	Open	Normal operation	AVR1:*
R538	Open	Normal operation	AVR1:*
R539	Open	Normal operation	AVR1:*
R540	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R541 (Except:-48)	Open	Normal operation	AVR1:*
R542 (Except:-48)	Open	Normal operation	AVR1:*
R543 (Except:-48)	Open	Normal operation	AVR1:*
R544 (Except:-48)	Open	Normal operation	AVR1:*
R545 (Except:-48)	Open	Normal operation	AVR1:*
R546 (Except:-48)	Open	Normal operation	AVR1:*
R547	Open	Normal operation	AVR1:*
R548	Open	Normal operation	AVR1:*
R549	Open	Normal operation	AVR1:*
R550	Open	Normal operation	AVR1:*
R551	Open	Normal operation	AVR1:*
R552	Open	Normal operation	AVR1:*
R553	Open	Normal operation	AVR1:*
R554 (Except:-48)	Open	Normal operation	AVR1:*
R555 (Except:-48)	Open	Normal operation	AVR1:*
R556 (Except:-48)	Open	Normal operation	AVR1:*
R561	Open	Normal operation	AVR1:*
R562	Open	Normal operation	AVR1:*
R563	Open	Normal operation	AVR1:*
R564	Open	Normal operation	AVR1:*
R565	Open	Normal operation	AVR1:*
R566	Open	Normal operation	AVR1:*
R567	Open	Normal operation	AVR1:*
R568	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R569	Open	Normal operation	AVR1:*
R570	Open	Normal operation	AVR1:*
R571	Open	Normal operation	AVR1:*
R572	Open	Normal operation	AVR1:*
R573	Open	Normal operation	AVR1:*
R574	Open	Normal operation	AVR1:*
R576	Open	Normal operation	AVR1:*
R577	Open	Normal operation	AVR1:*
R578	Open	Normal operation	AVR1:*
R579	Open	Normal operation	AVR1:*
R580	Open	Normal operation	AVR1:*
R581	Open	Normal operation	AVR1:*
R582	Open	Normal operation	AVR1:*
R583	Open	Normal operation	AVR1:*
R589	Open	Normal operation	AVR1:*
R590	Open	Normal operation	AVR1:*
R591 (Except:-48)	Open	Normal operation	AVR1:*
R592	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
R593	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
R594 (Only:-48)	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
R595 (Only:-48)	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R595	Short	No Hazard.	AVR1:0
R596 (Only:-48)	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
R597 (Only:-48)	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
R598 (Only:-48)	Open	No Hazard.	AVR1:0
	Short	Normal operation	AVR1:*
R599 (Only:-48)	Open	No Hazard.	AVR1:0
	Short	Normal operation	AVR1:*
R601	Open	Normal operation	AVR1:*
R602	Open	Normal operation	AVR1:*
R603	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
R604	Open	Normal operation	AVR1:*
R605	Open	Normal operation	AVR1:*
R606	Open	No Hazard.	AVR1:0
	Short	Output voltage decreased. No hazard.	AVR1:decreased
R607	Open	No Hazard.	AVR1:0
	Short	Output voltage decreased. No hazard.	AVR1:decreased
R608	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0
R609	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
R610	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
R610	Open	Normal operation	AVR1:*
R612	Open	No Hazard.	AVR1:0
R613 (Only:-12)	Open	Normal operation	AVR1:*
R701	Open	Normal operation	AVR1:*
R702	Open	Normal operation	AVR1:*
R703	Open	Normal operation	AVR1:*
R704	Open	Normal operation	AVR1:*
SS101 +	Open	Normal operation	AVR1:*
SS101 -	Open	Normal operation	AVR1:*
SS101 AC	Open	Normal operation	AVR1:*
SS101 +-AC	Short	See page 39.	
SS101 --AC	Short	See page 39.	
SS102 +	Open	Normal operation	AVR1:*
SS102 -	Open	Normal operation	AVR1:*
SS102 AC	Open	Normal operation	AVR1:*
SS102 +-AC	Short	See page 40.	
SS102 --AC	Short	See page 40.	
SS103 Cathod	Open	F101, F102 opened, No hazard.	AVR1:0
SS103 Altern	Open	Normal operation	AVR1:*
SS103 C-A	Short	See page 40.	
SS501 Cathod	Open	Normal operation	AVR1:*
SS501 Altern	Open	Normal operation	AVR1:*
SS501 C-A	Short	See page 40.	
SS502 Cathod	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment		Output Voltage (V)
SS502 Altern ative	Open	Normal operation		AVR1:*
SS502 C-A	Short	See page 40.		
SS503 Cathod	Open	Normal operation		AVR1:*
SS503 Altern ative	Open	Normal operation		AVR1:*
SS503 C-A	Short	See page 40.		
SS504 Cathod	Open	Normal operation		AVR1:*
SS504 Altern ative	Open	Normal operation		AVR1:*
SS504 C-A	Short	See page 40.		
SS505 Cathod	Open	Normal operation		AVR1:*
SS505 Altern ative	Open	Normal operation		AVR1:*
SS505 C-A	Short	See page 40.		
SS506 Cathod	Open	Normal operation		AVR1:*
SS506 Altern ative	Open	Normal operation		AVR1:*
SS506 C-A	Short	See page 40.		
T201	Open	A	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
		C	No Hazard.	AVR1:0
		D	No Hazard.	AVR1:0
		1	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		6, 7	F101, F102 opened, No hazard.	AVR1:0
	Short	A-B	See page 40.	
		C-D	See page 40.	
T202	Open	1	No Hazard.	AVR1:0



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Component		Mode	Comment	Output Voltage (V)
T202	Open	3	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		9	No Hazard.	AVR1:0
		10	No Hazard.	AVR1:0
	Short	6-7	No Hazard.	AVR1:0
		9-10	No Hazard.	AVR1:0
TR101	Open	D	R180, R181 opened, No hazard.	AVR1:0
		S	R180, R181 opened, No hazard.	AVR1:0
		G	R180, R181 opened, No hazard.	AVR1:0
	Short	D-S	See page 40.	
		S-G	Normal operation	AVR1:*
		G-D	See page 40.	
TR102	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	See page 40.	
	Short	D-S	See page 40.	
		S-G	R180, R181 opened, No hazard.	AVR1:0
		G-D	See page 40.	
TR103	Open	C	Normal operation	AVR1:*
		E	Normal operation	AVR1:*
		B	Normal operation	AVR1:*
	Short	C-E	Normal operation	AVR1:*
		E-B	Normal operation	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
TR103	Short	B-C	Normal operation	AVR1:*
TR105	Open	C	R180, R181 opened, No hazard.	AVR1:0
		E	R180, R181 opened, No hazard.	AVR1:0
		B	R180, R181 opened, No hazard.	AVR1:0
	Short	C-E	Normal operation	AVR1:*
		E-B	R180, R181 opened, No hazard.	AVR1:0
		B-C	Normal operation	AVR1:*
TR106	Open	C	Normal operation	AVR1:*
		E	Normal operation	AVR1:*
		B	Normal operation	AVR1:*
	Short	C-E	R180, R181 opened, No hazard.	AVR1:0
		E-B	R180, R181 opened, No hazard.	AVR1:0
		B-C	R180, R181 opened, No hazard.	AVR1:0
TR107	Open	C	Normal operation	AVR1:*
		E	Normal operation	AVR1:*
		B	Normal operation	AVR1:*
	Short	C-E	R180, R181 opened, No hazard.	AVR1:0
		E-B	R180, R181 opened, No hazard.	AVR1:0
		B-C	R180, R181 opened, No hazard.	AVR1:0
TR170	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	No Hazard.	AVR1:0
		E-B	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
TR170	Short	B-C	No Hazard.	AVR1:0
TR180	Open	D	R180, R181 opened, No hazard.	AVR1:0
		S	R180, R181 opened, No hazard.	AVR1:0
		G	R180, R181 opened, No hazard.	AVR1:0
	Short	D-S	Normal operation	AVR1:*
		S-G	R180, R181 opened, No hazard.	AVR1:0
		G-D	See page 40.	
TR201	Open	G	See page 40.	
	Short	D-S	See page 40.	
		G-D	See page 40.	
TR202	Open	G	See page 40.	
	Short	D-S	See page 40.	
		G-D	See page 40.	
TR205	Open	C	Normal operation	AVR1:*
		E	Normal operation	AVR1:*
		B	Normal operation	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation	AVR1:*
		B-C	No Hazard.	AVR1:0
TR206	Open	C	Normal operation	AVR1:*
		E	Normal operation	AVR1:*
		B	Normal operation	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation	AVR1:*



F M E A

Component	Mode		Comment	Output Voltage (V)
TR206	Short	B-C	No Hazard.	AVR1:0
TR207	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	No Hazard.	AVR1:0
		E-B	No Hazard.	AVR1:0
		B-C	F101, F102 opened, No hazard.	AVR1:0
TR208	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	No Hazard.	AVR1:0
		E-B	F101, F102 opened, No hazard.	AVR1:0
		B-C	F101, F102 opened, No hazard.	AVR1:0
TR210	Open	1	Normal operation	AVR1:*
		2	Normal operation	AVR1:*
		3	Normal operation	AVR1:*
		4	Normal operation	AVR1:*
		5	Normal operation	AVR1:*
		6	Normal operation	AVR1:*
	Short	1-2	Normal operation	AVR1:*
		2-3	Normal operation	AVR1:*
		3-4	Normal operation	AVR1:*
		4-5	Normal operation	AVR1:*
		5-6	Normal operation	AVR1:*



F M E A

Component		Mode	Comment	Output Voltage (V)
TR250	Open	C	See page 40.	
		E	See page 41.	
		B	See page 41.	
	Short	C-E		AVR1:0
		E-B		AVR1:*
		B-C		AVR1:*
TR270	Open	C	See page 41.	
		E	See page 41.	
		B	See page 41.	
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation	AVR1:*
		B-C	Normal operation	AVR1:*
TR501 (Only:-48)	Open	C	Normal operation	AVR1:*
		E	Normal operation	AVR1:*
		B	Normal operation	AVR1:*
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation	AVR1:*
		B-C	No Hazard.	AVR1:0
TRC101	Open	T1	R180, R181 opened, No hazard.	AVR1:0
		T2	R180, R181 opened, No hazard.	AVR1:0
		G	R180, R181 opened, No hazard.	AVR1:0
	Short	T1-T2	Normal operation	AVR1:*
		T2-G	R180, R181 opened, No hazard.	AVR1:0
VR201	Open	brush	Output voltage decreased. No hazard.	AVR1:decreased



F M E A

Component	Mode	Comment	Output Voltage (V)
VR201	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Normal operation	AVR1:*
VR601	Open	brush	Output voltage decreased. No hazard.
			Output voltage decreased. No hazard.
	Short		No Hazard.
ZD101	Open	See page 41.	
	Short	R180, R181 opened, No hazard.	AVR1:0
ZD102	Open	See page 41.	
	Short	No Hazard.	AVR1:0
ZD103	Open	Normal operation	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
ZD104	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
ZD105	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
ZD170	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
ZD180	Open	No Hazard.	AVR1:*
	Short	R180, R181 opened, No hazard.	AVR1:0
ZD202	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
ZD210	Open	Normal operation	AVR1:*
	Short	Normal operation	AVR1:*
ZD501	Open	Normal operation	AVR1:*



F M E A

Component	Mode	Comment	Output Voltage (V)
ZD501	Short	No Hazard.	AVR1:0
ZD502 (Except:-12)	Open	Normal operation	AVR1:*
	Short	No Hazard.	AVR1:0
ZD601 (Only:-36, -48)	Open	No Hazard.	AVR1:0
	Short	Output voltage decreased. No hazard.	AVR1:decreased



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
C112	Short	R180, R181 opened, No hazard.	AVR1:0
C114	Short	R180, R181 opened, No hazard.	AVR1:0
C125	Short	R180, R181 opened, No hazard.	AVR1:0
C130	Short	F101, TRC101 opened, No hazard.	AVR1:0
C131	Short	F101, TRC101 opened, No hazard.	AVR1:0
C132	Short	F101, TRC101 opened, No hazard.	AVR1:0
C172	Short	R180, R181 opened, No hazard.	AVR1:0
C180	Short	R180, R181, R182 opened, No hazard.	AVR1:0
C201	Short	Output voltage decreased. No hazard.	AVR1:decreased
C202	Short	Output voltage decreased. No hazard.	AVR1:decreased
C203	Short	Output voltage decreased. No hazard.	AVR1:decreased
C204	Short	No Hazard.	AVR1:0
C205	Short	No Hazard.	AVR1:0
C214	Short	No Hazard.	AVR1:0
C704	Short	Output voltage decreased. No hazard.	AVR1:decreased
C705	Short	Output voltage decreased. No hazard.	AVR1:decreased
C706	Short	Output voltage decreased. No hazard.	AVR1:decreased
C708	Short	Output voltage decreased. No hazard.	AVR1:decreased
D103	Open	Normal operation	AVR1:*
D104	Open	Normal operation	AVR1:*
D110	Short	F101 opened, No hazard.	AVR1:0
D201	Short	Output voltage decreased. No hazard.	AVR1:decreased
D202	Short	Output voltage decreased. No hazard.	AVR1:decreased
D251	Open	No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
D252	Short		F101 opened, No hazard.	AVR1:0
D271	Open		No Hazard.	AVR1:0
D272	Short		F101 opened, No hazard.	AVR1:0
FAN701	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
FAN702	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
L103	Short	1-2	F101 opened, No hazard.	AVR1:0
		2-3, 4, 5	No Hazard.	AVR1:*
L104	Open		Normal operation	AVR1:*
L517	Short	3-4	Output voltage decreased. No hazard.	AVR1:decreased
R122	Open		Normal operation	AVR1:*
R152	Open		Output voltage decreased. No hazard.	AVR1:decreased
R153	Open		Output voltage decreased. No hazard.	AVR1:decreased
R242	Open		Output voltage decreased. No hazard.	AVR1:decreased
R243	Open		Output voltage decreased. No hazard.	AVR1:decreased
R250	Open		Output voltage decreased. No hazard.	AVR1:decreased
R253	Open		Output voltage decreased. No hazard.	AVR1:decreased
R254	Open		Output voltage decreased. No hazard.	AVR1:decreased
R270	Open		Output voltage decreased. No hazard.	AVR1:decreased
R273	Open		Output voltage decreased. No hazard.	AVR1:decreased
R274	Open		Output voltage decreased. No hazard.	AVR1:decreased
SS101 +-AC	Short		F101 opened, No hazard.	AVR1:0
SS101 --AC	Short		F101 opened, No hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode	Comment	Output Voltage (V)
SS102 +-AC	Short	F101 opened, No hazard.	AVR1:0
SS102 --AC	Short	F101 opened, No hazard.	AVR1:0
SS103 C-A	Short	F101 opened, No hazard.	AVR1:0
SS501 C-A	Short	Output voltage decreased. No hazard.	AVR1:decreased
SS502 C-A	Short	Output voltage decreased. No hazard.	AVR1:decreased
SS503 C-A	Short	Output voltage decreased. No hazard.	AVR1:decreased
SS504 C-A	Short	Output voltage decreased. No hazard.	AVR1:decreased
SS505 C-A	Short	Output voltage decreased. No hazard.	AVR1:decreased
SS506 C-A	Short	Output voltage decreased. No hazard.	AVR1:decreased
T201	Short	A-B	Output voltage decreased. No hazard.
		C-D	Output voltage decreased. No hazard.
TR101	Short	D-S	R120 opened, IC101 short No hazard.
		G-D	R120 opened, IC101 short No hazard.
TR102	Open	G	F101 opened, No hazard.
	Short	D-S	F101 opened, No hazard.
		G-D	F101 opened, No hazard.
TR180	Short	G-D	Normal operation
TR201	Open	G	No Hazard.
	Short	D-S	Output voltage decreased. No hazard.
		G-D	Output voltage decreased. No hazard.
TR202	Open	G	No Hazard.
	Short	D-S	Output voltage decreased. No hazard.
		G-D	Output voltage decreased. No hazard.
TR250	Open	C	Output voltage decreased. No hazard.



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR250	Open	E	Output voltage decreased. No hazard.	AVR1:decreased
		B	Output voltage decreased. No hazard.	AVR1:decreased
TR270	Open	C	Output voltage decreased. No hazard.	AVR1:decreased
		E	Output voltage decreased. No hazard.	AVR1:decreased
		B	Output voltage decreased. No hazard.	AVR1:decreased
ZD101	Open		R180, R181 opened, No hazard.	AVR1:0
ZD102	Open		R180, R181 opened, No hazard.	AVR1:0