

## ABNORMAL TEST RESULT

## OF MODEL TUXS150F

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 : 2/32 ~ 30/32)

( Abnormal Test Result: 31/32 ~ 32/32)

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.	AVR1:50[V]
	Short	F11 opened, No hazard.	AVR1:0[V]
C102	Open	Normal operation.	AVR1:50[V]
	Short	F11 opened, No hazard.	AVR1:0[V]
C111	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C112	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C113	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C114	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C115	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C116	Open	Normal operation.	AVR1:50[V]
	Short	See 31 Page.	
C150	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard..	AVR1:0[V]
C151	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard..	AVR1:0[V]
C152	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard..	AVR1:0[V]
C153	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard..	AVR1:0[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
C156	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard..	AVR1:0[V]
C162	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard..	AVR1:0[V]
C200	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard..	AVR1:0[V]
C201	Open	Normal operation.	AVR1:50[V]
	Short	F11 opened, No hazard.	AVR1:0[V]
C202	Open	Normal operation.	AVR1:50[V]
	Short	F11 opened, No hazard. ormal operation.	AVR1:0[V]
C210	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C211	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C212	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C213	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C214	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C215	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C216	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
C217	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C220	Open	Normal operation.	AVR1:50[V]
	Short	F11 opened, No hazard.	AVR1:0[V]
C300	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C302	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C304	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C306	Open	Normal operation.	AVR1:50[V]
	Short	See 31 Page.	
C307	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C310	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C311	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C312	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C313	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C321	Open	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
C323	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C324	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C325	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C326	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C328	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C329	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C330	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C331	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C334	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C335	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C337	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C400	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
C401	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C402	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C404	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C405	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C406	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C407	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C408	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C412	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C413	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C501	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C502	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C503	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
C504	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C505	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C507	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C508	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C509	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C510	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C511	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C512	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C521	Open	Normal operation.	AVR1:50[V]
	Short	See 31 Page.	
C522	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C523	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C524	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
C525	Open	Normal operation.	AVR1:50[V]
	Short	See 31 Page.	
C531	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C601	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:2.5[V]
C603	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C604	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C606	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C607	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage increased. No hazard.	AVR1:0[V]
C608	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C609	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage increased. No hazard.	AVR1:0[V]
C610	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C651	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage increased. No hazard.	AVR1:0[V]
C652	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage increased. No hazard.	AVR1:0[V]



## F M E A

Component	Mode	Comment	Output Voltage (V)
C653	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage increased. No hazard.	AVR1:0[V]
C654	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C656	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C657	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C658	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C701	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C702	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C801	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
C802	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
C806	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D106	Open	See 31 Page.	
	Short	See 31 Page.	
D111	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
D113	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D201	Open	See 31 Page.	
	Short	See 31 Page.	
D202	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D203	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D211	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:50[V]
D212	Open	Normal operation.	AVR1:50[V]
	Short	Output voltage decreased. No hazard.	AVR1:0[V]
D303	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D321	Open	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	See 31 Page.	
D322	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D323	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D401	Open	Normal operation.	AVR1:50[V]
	Short	Normal operation.	AVR1:50[V]
D402	Open	See 31 Page.	
	Short	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
D404	Open		See 31 Page.	
	Short		See 31 Page.	
D501	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage decreased. No hazard.	AVR1:0[V]
D502	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage decreased. No hazard.	AVR1:0[V]
D520	Open		Normal operation.	AVR1:50[V]
	Short		Normal operation.	AVR1:50[V]
D521	Open		Normal operation.	AVR1:50[V]
	Short		Normal operation.	AVR1:50[V]
D601	Open		Normal operation.	AVR1:50[V]
	Short		Normal operation.	AVR1:50[V]
D603	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage decreased. No hazard.	AVR1:0[V]
D651	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage increased. No hazard.	AVR1:0[V]
D652	Open		Normal operation.	AVR1:50[V]
	Short		See 31 Page.	
D653	Open		Output voltage increased. No hazard.	AVR1:0[V]
	Short		Output voltage increased. No hazard.	AVR1:0[V]
D654	Open		Normal operation.	AVR1:50[V]
	Short		Normal operation.	AVR1:50[V]
IC110	Open	1	Output voltage decreased. No hazard.	AVR1:0[V]
		2	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC110	Open	3	Output voltage decreased. No hazard.	AVR1:0[V]
		4	Normal operation.	AVR1:50[V]
		5	Output voltage decreased. No hazard.	AVR1:0[V]
		6	Output voltage decreased. No hazard.	AVR1:0[V]
		7	Normal operation.	AVR1:50[V]
		8	Normal operation.	AVR1:50[V]
	Short	1-2	Output voltage decreased. No hazard.	AVR1:0[V]
		2-3	Output voltage decreased. No hazard.	AVR1:0[V]
		3-4	Output voltage decreased. No hazard.	AVR1:0[V]
		5-6	Normal operation.	AVR1:50[V]
		6-7	Output voltage decreased. No hazard.	AVR1:0[V]
		7-8	Normal operation.	AVR1:50[V]
IC152	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Normal operation.	AVR1:50[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Output voltage decreased. No hazard.	AVR1:0[V]
		4-5	Normal operation.	AVR1:50[V]
IC153	Open	1	Output voltage decreased. No hazard..	AVR1:0[V]
		2	Normal operation.	AVR1:50[V]
		3	Output voltage decreased. No hazard..	AVR1:0[V]
		4	Output voltage decreased. No hazard..	AVR1:0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC153	Open	5	Normal operation.	AVR1:50[V]
	Short	1-2	Output voltage decreased. No hazard..	AVR1:0[V]
		2-3	See 31 Page.	
		4-5	Output voltage decreased. No hazard..	AVR1:0[V]
IC201	Open	1	Output voltage decreased. No hazard.	AVR1:0[V]
		2	Normal operation.	AVR1:50[V]
		3	Normal operation.	AVR1:50[V]
		4	Normal operation.	AVR1:50[V]
		5	Output voltage decreased. No hazard.	AVR1:0[V]
		6	Output voltage decreased. No hazard.	AVR1:0[V]
		7	Output voltage decreased. No hazard.	AVR1:0[V]
		8	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		3-4	Normal operation.	AVR1:50[V]
		5-6	Normal operation.	AVR1:50[V]
		6-7	Normal operation.	AVR1:50[V]
IC202	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Normal operation.	AVR1:50[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
	Short	1-2	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC202	Short	2-3	Normal operation.	AVR1:50[V]
		4-5	Normal operation.	AVR1:50[V]
IC301	Open	1	Output voltage decreased. No hazard.	AVR1:0[V]
		2	Output voltage decreased. No hazard.	AVR1:0[V]
		3	Output voltage decreased. No hazard.	AVR1:0[V]
		4	Output voltage decreased. No hazard.	AVR1:0[V]
		5	Normal operation.	AVR1:50[V]
		6	Normal operation.	AVR1:50[V]
		7	Output voltage decreased. No hazard.	AVR1:0[V]
		8	Output voltage decreased. No hazard.	AVR1:0[V]
		9	Normal operation.	AVR1:50[V]
		10	Output voltage decreased. No hazard.	AVR1:0[V]
		11	Output voltage decreased. No hazard.	AVR1:0[V]
		12	Normal operation.	AVR1:50[V]
		13	Normal operation.	AVR1:50[V]
		14	Output voltage decreased. No hazard.	AVR1:0[V]
		15	Output voltage decreased. No hazard.	AVR1:0[V]
		16	Output voltage decreased. No hazard.	AVR1:0[V]
		17	Normal operation.	AVR1:50[V]
		18	Normal operation.	AVR1:50[V]
	Short	1-2	Output voltage decreased. No hazard.	AVR1:0[V]
		2-3	Output voltage decreased. No hazard.	AVR1:0[V]
		3-4	Output voltage decreased. No hazard.	AVR1:0[V]
		4-5	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Short	5-6	Output voltage decreased. No hazard.	AVR1:0[V]
		6-7	Normal operation.	AVR1:50[V]
		7-8	Output voltage decreased. No hazard.	AVR1:0[V]
		8-9	Normal operation.	AVR1:50[V]
		9-10	Normal operation.	AVR1:50[V]
		10-11	Output voltage decreased. No hazard.	AVR1:0[V]
		11-12	Normal operation.	AVR1:50[V]
		12-13	Normal operation.	AVR1:50[V]
		13-14	Normal operation.	AVR1:50[V]
		14-15	R11 opened, No hazard.	
		15-16	Output voltage decreased. No hazard.	AVR1:0[V]
		16-17	Normal operation.	AVR1:50[V]
		17-18	Normal operation.	AVR1:50[V]
IC401	Open	1	Output voltage decreased. No hazard.	AVR1:0[V]
		2	Output voltage decreased. No hazard.	AVR1:0[V]
		3	Output voltage decreased. No hazard.	AVR1:0[V]
		4	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	1-2	See 31 Page.	
		2-3	No Hazard.	AVR1:0[V]
IC402	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Normal operation.	AVR1:50[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC402	Open	6	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		4-5	Normal operation.	AVR1:50[V]
		5-6	Normal operation.	AVR1:50[V]
IC501	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Output voltage decreased. No hazard.	AVR1:0[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
		6	Normal operation.	AVR1:50[V]
		7	Normal operation.	AVR1:50[V]
		8	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		3-4	Normal operation.	AVR1:50[V]
		5-6	Normal operation.	AVR1:50[V]
		6-7	Normal operation.	AVR1:50[V]
		7-8	No Hazard.	AVR1:50[V]
IC502	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Output voltage decreased. No hazard.	AVR1:0[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]



## F M E A

Component	Mode		Comment	Output Voltage (V)
IC502	Open	6	Normal operation.	AVR1:50[V]
		7	Normal operation.	AVR1:50[V]
		8	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		3-4	Normal operation.	AVR1:50[V]
		5-6	Normal operation.	AVR1:50[V]
		6-7	Normal operation.	AVR1:50[V]
		7-8	No Hazard.	AVR1:50[V]
IC521	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Output voltage increased. No hazard.	AVR1:0[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		4-5	Normal operation.	AVR1:50[V]
IC601	Open	1	Output voltage increased. No hazard.	AVR1:0[V]
		2	Output voltage increased. No hazard.	AVR1:0[V]
		3	Output voltage decreased. No hazard.	AVR1:50[V]
		4	Output voltage increased. No hazard.	AVR1:0[V]
		5	Normal operation.	AVR1:50[V]
	Short	1-2	Output voltage decreased. No hazard.	AVR1:0[V]
		2-3	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC601	Short	4-5	Output voltage decreased. No hazard.	AVR1:0[V]
IC602	Open	1	Output voltage decreased. No hazard.	AVR1:decreased
		2	Normal operation.	AVR1:50[V]
		3	Output voltage decreased. No hazard.	AVR1:decreased
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
		6	Output voltage decreased. No hazard.	AVR1:decreased
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		4-5	Normal operation.	AVR1:50[V]
		5-6	Normal operation.	AVR1:50[V]
IC651	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Normal operation.	AVR1:50[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		3-4	Normal operation.	AVR1:50[V]
		4-5	Normal operation.	AVR1:50[V]
IC652	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Normal operation.	AVR1:50[V]
		4	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
IC652	Open	5	Normal operation.	AVR1:50[V]
	Short	1-2	Output voltage increased. No hazard.	AVR1:0[V]
		2-3	Output voltage increased. No hazard.	AVR1:0[V]
		4-5	Normal operation.	AVR1:50[V]
IC654	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Normal operation.	AVR1:50[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Output voltage increased. No hazard.	AVR1:0[V]
		4-5	Output voltage increased. No hazard.	AVR1:0[V]
IC701	Open	1	Normal operation.	AVR1:50[V]
		2	Normal operation.	AVR1:50[V]
		3	Output voltage decreased. No hazard.	AVR1:0[V]
		4	Normal operation.	AVR1:50[V]
		5	Normal operation.	AVR1:50[V]
	Short	1-2	Normal operation.	AVR1:50[V]
		2-3	Normal operation.	AVR1:50[V]
		4-5	Normal operation.	AVR1:50[V]
		5-6	Normal operation.	AVR1:50[V]
L201	Open		Output voltage decreased. No hazard.	AVR1:0[V]
	Short		F11 opened, No hazard.	AVR1:0[V]
L501	Open		See 31 Page.	

## F M E A

Component	Mode		Comment	Output Voltage (V)
L501	Short		Normal operation.	AVR1:50[V]
PC301	Open	A, K	Output voltage increased. No hazard.	AVR1:0[V]
		C, E	Output voltage increased. No hazard.	AVR1:0[V]
	Short	A-K	Output voltage increased. No hazard.	AVR1:0[V]
		C-E	Output voltage decreased. No hazard.	AVR1:0[V]
PC302	Open	A, K	Normal operation.	AVR1:50[V]
		C, E	Normal operation.	AVR1:50[V]
	Short	A-K	Normal operation.	AVR1:50[V]
		C-E	Output voltage decreased. No hazard.	AVR1:0[V]
PTH210	Open		Output voltage decreased. No hazard.	AVR1:0[V]
	Short		Normal operation.	AVR1:50[V]
PTH701	Open		Output voltage decreased. No hazard.	AVR1:0[V]
	Short		Normal operation.	AVR1:50[V]
R102	Open		See 31 Page.	
R111	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R112	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R113	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R114	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R115	Open		Normal operation.	AVR1:50[V]
R116	Open		Normal operation.	AVR1:50[V]
R117	Open		Normal operation.	AVR1:50[V]
R119	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R151	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R152	Open		See 31 Page.	

## F M E A

Component	Mode	Comment	Output Voltage (V)
R153	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R154	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R157	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R200	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R201	Open	See 31 Page.	
R202	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R203	Open	Normal operation.	AVR1:50[V]
R204	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R205	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R206	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R207	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R208	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R209	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R211	Open	Normal operation.	AVR1:50[V]
R212	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R213	Open	Normal operation.	AVR1:50[V]
R214	Open	Normal operation.	AVR1:50[V]
R215	Open	Normal operation.	AVR1:50[V]
R216	Open	Normal operation.	AVR1:50[V]
R217	Open	Normal operation.	AVR1:50[V]
R218	Open	Normal operation.	AVR1:50[V]
R219	Open	Normal operation.	AVR1:50[V]
R220	Open	Normal operation.	AVR1:50[V]
R221	Open	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
R222	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R223	Open	Normal operation.	AVR1:50[V]
R300	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R301	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R302	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R303	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R304	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R305	Open	Normal operation.	AVR1:50[V]
R306	Open	Normal operation.	AVR1:50[V]
R307	Open	Normal operation.	AVR1:50[V]
R308	Open	Normal operation.	AVR1:50[V]
R309	Open	Normal operation.	AVR1:50[V]
R310	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R311	Open	Normal operation.	AVR1:50[V]
R312	Open	Normal operation.	AVR1:50[V]
R313	Open	Output voltage increased. No hazard.	AVR1:0[V]
R314	Open	Normal operation.	AVR1:50[V]
R315	Open	Normal operation.	AVR1:50[V]
R316	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R317	Open	Normal operation.	AVR1:50[V]
R321	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R322	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R323	Open	Normal operation.	AVR1:50[V]
R324	Open	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
R325	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R326	Open	Normal operation.	AVR1:50[V]
R327	Open	Normal operation.	AVR1:50[V]
R331	Open	Normal operation.	AVR1:50[V]
R336	Open	Normal operation.	AVR1:50[V]
R401	Open	See 31 Page.	
R402	Open	Normal operation.	AVR1:50[V]
R403	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R404	Open	Normal operation.	AVR1:50[V]
R405	Open	Normal operation.	AVR1:50[V]
R406	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R408	Open	Normal operation.	AVR1:50[V]
R409	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R411	Open	Normal operation.	AVR1:50[V]
R412	Open	Normal operation.	AVR1:50[V]
R413	Open	Normal operation.	AVR1:50[V]
R414	Open	Normal operation.	AVR1:50[V]
R415	Open	Normal operation.	AVR1:50[V]
R501	Open	See 31 Page.	
R502	Open	Normal operation.	AVR1:50[V]
R503	Open	Normal operation.	AVR1:50[V]
R504	Open	Output voltage decreased. No hazard.	AVR1:0[V]
R505	Open	Normal operation.	AVR1:50[V]
R506	Open	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode	Comment	Output Voltage (V)
R507	Open	Normal operation.	AVR1:50[V]
R510	Open	See 31 Page.	
R511	Open	Normal operation.	AVR1:50[V]
R512	Open	Normal operation.	AVR1:50[V]
R513	Open	Normal operation.	AVR1:50[V]
R514	Open	Normal operation.	AVR1:50[V]
R515	Open	Normal operation.	AVR1:50[V]
R516	Open	Normal operation.	AVR1:50[V]
R517	Open	Normal operation.	AVR1:50[V]
R521	Open	Normal operation.	AVR1:50[V]
R522	Open	See 31 Page.	
R523	Open	Normal operation.	AVR1:50[V]
R601	Open	Output voltage increased. No hazard.	AVR1:0[V]
R602	Open	Output voltage increased. No hazard.	AVR1:0[V]
R603	Open	See 31 Page.	
R604	Open	Output voltage decreased. No hazard.	AVR1:10.8[V]
R605	Open	Normal operation.	AVR1:50[V]
R606	Open	Normal operation.	AVR1:50[V]
R607	Open	Output voltage increased. No hazard.	AVR1:0[V]
R608	Open	See 32 Page.	
R609	Open	Output voltage decreased. No hazard.	AVR1:10.8[V]
R610	Open	Output voltage increased. No hazard.	AVR1:0[V]
R613	Open	Normal operation.	AVR1:50[V]
R614	Open	Output voltage increased. No hazard.	AVR1:0[V]



## F M E A

Component	Mode		Comment	Output Voltage (V)
R615	Open		Normal operation.	AVR1:50[V]
R616	Open		Normal operation.	AVR1:50[V]
R651	Open		Normal operation.	AVR1:50[V]
R652	Open		See 32 Page.	
R653	Open		See 32 Page.	
R654	Open		Normal operation.	AVR1:50[V]
R655	Open		Normal operation.	AVR1:50[V]
R656	Open		Normal operation.	AVR1:50[V]
R701	Open		Normal operation.	AVR1:50[V]
R702	Open		Normal operation.	AVR1:50[V]
R703	Open		Normal operation.	AVR1:50[V]
R704	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R705	Open		Output voltage decreased. No hazard.	AVR1:0[V]
R706	Open		Normal operation.	AVR1:50[V]
R707	Open		Normal operation.	AVR1:50[V]
R708	Open		Normal operation.	AVR1:50[V]
R709	Open		Normal operation.	AVR1:50[V]
R711	Open		Normal operation.	AVR1:50[V]
R805	Open		Normal operation.	AVR1:50[V]
R809	Open		Normal operation.	AVR1:50[V]
R816	Open		Normal operation.	AVR1:50[V]
SS101	Open		Normal operation.	AVR1:50[V]
	Short		F11 opened, No hazard.	AVR1:0[V]
T301	Open	1	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
T301	Open	2	Output voltage decreased. No hazard.	AVR1:0[V]
		3	Normal operation.	AVR1:50[V]
		4	See 32 Page.	
		5	Normal operation.	AVR1:50[V]
		6	Normal operation.	AVR1:50[V]
		7	Normal operation.	AVR1:50[V]
	Short	1-2	See 32 Page.	
		3-4	See 32 Page.	
		4-5	Output voltage decreased. No hazard.	AVR1:0[V]
		5-6	See 32 Page.	
		6-7	Output voltage increased. No hazard.	AVR1:0[V]
T402	Open	1	Output voltage decreased. No hazard.	AVR1:0[V]
		5	Output voltage decreased. No hazard.	AVR1:0[V]
		7	Output voltage decreased. No hazard.	AVR1:0[V]
		10	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	1-5	Output voltage decreased. No hazard.	AVR1:0[V]
		7-10	Output voltage decreased. No hazard.	AVR1:0[V]
TR201	Open	D	Output voltage decreased. No hazard.	AVR1:0[V]
		S	Output voltage decreased. No hazard.	AVR1:0[V]
		G	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	D-S	F11 opened, No hazard.	AVR1:0[V]
		S-G	Output voltage decreased. No hazard.	AVR1:0[V]
		G-D	F11 opened, No hazard.	AVR1:0[V]
TR211	Open	C	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR211	Open	E	Normal operation.	AVR1:50[V]
		B	Normal operation.	AVR1:50[V]
	Short	C-E	Output voltage decreased. No hazard.	AVR1:0[V]
		E-B	Normal operation.	AVR1:50[V]
		B-C	See 32 Page.	
TR212	Open	D	Normal operation.	AVR1:50[V]
		S	Normal operation.	AVR1:50[V]
		G	Normal operation.	AVR1:50[V]
	Short	D-S	Output voltage decreased. No hazard.	AVR1:0[V]
		S-G	Normal operation.	AVR1:50[V]
		G-D	Output voltage decreased. No hazard.	AVR1:0[V]
TR213	Open	D	Output voltage decreased. No hazard.	AVR1:0[V]
		S	Output voltage decreased. No hazard.	AVR1:0[V]
		G	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	D-S	Normal operation.	AVR1:50[V]
		S-G	Output voltage decreased. No hazard.	AVR1:0[V]
		G-D	Output voltage decreased. No hazard.	AVR1:0[V]
TR301	Open	D	Output voltage decreased. No hazard.	AVR1:0[V]
		S	Output voltage decreased. No hazard.	AVR1:0[V]
		G	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	D-S	See 32 Page.	
		S-G	Output voltage decreased. No hazard.	AVR1:0[V]
		G-D	See 32 Page.	
TR302	Open	D	Output voltage decreased. No hazard.	AVR1:0[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR302	Open	S	Output voltage decreased. No hazard.	AVR1:0[V]
		G	Output voltage decreased. No hazard.	AVR1:0[V]
	Short	D-S	See 32 Page.	
		S-G	Output voltage decreased. No hazard.	AVR1:0[V]
		G-D	See 32 Page.	
TR303	Open	C	Normal operation.	AVR1:50[V]
		E	Normal operation.	AVR1:50[V]
		B	Normal operation.	AVR1:50[V]
	Short	C-E	Output voltage decreased. No hazard.	AVR1:0[V]
		E-B	Normal operation.	AVR1:50[V]
		B-C	Output voltage decreased. No hazard.	AVR1:0[V]
TR401	Open	C	Normal operation.	AVR1:50[V]
		E	Normal operation.	AVR1:50[V]
		B	Normal operation.	AVR1:50[V]
	Short	C-E	Normal operation.	AVR1:50[V]
		E-B	Normal operation.	AVR1:50[V]
		B-C	Normal operation.	AVR1:50[V]
TR501	Open	D	Normal operation.	AVR1:50[V]
		S	Normal operation.	AVR1:50[V]
		G	Normal operation.	AVR1:50[V]
	Short	D-S	Output voltage decreased. No hazard.	AVR1:0[V]
		S-G	Normal operation.	AVR1:50[V]
		G-D	Output voltage decreased. No hazard.	AVR1:0[V]
TR502	Open	D	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR502	Open	S	Normal operation.	AVR1:50[V]
		G	Normal operation.	AVR1:50[V]
	Short	D-S	Output voltage decreased. No hazard.	AVR1:0[V]
		S-G	Normal operation.	AVR1:50[V]
		G-D	Output voltage decreased. No hazard.	AVR1:0[V]
TR521	Open	D	Normal operation.	AVR1:50[V]
		S	Normal operation.	AVR1:50[V]
		G	Normal operation.	AVR1:50[V]
	Short	D-S	Normal operation.	AVR1:50[V]
		S-G	Normal operation.	AVR1:50[V]
		G-D	Normal operation.	AVR1:50[V]
TR651	Open	C	Output voltage increased. No hazard.	AVR1:0[V]
		E	Output voltage increased. No hazard.	AVR1:0[V]
		B	Output voltage increased. No hazard.	AVR1:0[V]
	Short	C-E	Normal operation.	AVR1:50[V]
		E-B	Output voltage increased. No hazard.	AVR1:0[V]
		B-C	Normal operation.	AVR1:50[V]
TR701	Open	C	Normal operation.	AVR1:50[V]
		E	Normal operation.	AVR1:50[V]
		B	Normal operation.	AVR1:50[V]
	Short	C-E	Output voltage decreased. No hazard.	AVR1:0[V]
		E-B	Normal operation.	AVR1:50[V]
		B-C	Output voltage decreased. No hazard.	AVR1:0[V]
TR702	Open	C	Normal operation.	AVR1:50[V]

## F M E A

Component	Mode		Comment	Output Voltage (V)
TR702	Open	E	Normal operation.	AVR1:50[V]
		B	Normal operation.	AVR1:50[V]
	Short	C-E	Output voltage decreased. No hazard.	AVR1:0[V]
		E-B	Normal operation.	AVR1:50[V]
		B-C	Normal operation.	AVR1:50[V]
ZD210	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage decreased. No hazard.	AVR1:0[V]
ZD301	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage decreased. No hazard.	AVR1:0[V]
ZD302	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage decreased. No hazard.	AVR1:0[V]
ZD401	Open		Normal operation.	AVR1:50[V]
	Short		Output voltage decreased. No hazard.	AVR1:0[V]
ZD402	Open		Output voltage decreased. No hazard.	AVR1:0[V]
	Short		Normal operation.	AVR1:50[V]
ZD521	Open		Normal operation.	AVR1:50[V]
	Short		Normal operation.	AVR1:50[V]
ZD651	Open		Normal operation.	AVR1:50[V]
	Short		Normal operation.	AVR1:50[V]

## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C116	Short		Output voltage decreased. No hazard.	0
C306	Short		Normal operation.	50
C521	Short		Normal operation.	50
C525	Short		Normal operation.	50
D106	Open		Normal operation.	50
	Short		Output voltage decreased. No hazard.	0
D201	Open		Output voltage decreased. No hazard.	0
	Short		Output voltage decreased. No hazard.	0
D321	Short		Output voltage decreased. No hazard.	0
D402	Open		Output voltage decreased. No hazard.	0
D404	Open		Normal operation.	50
	Short		Normal operation.	50
D652	Short		Normal operation.	50
IC153	Short	2-3	Output voltage decreased. No hazard.	0
IC401	Short	1-2	Normal operation.	50
L501	Open		Output voltage decreased. No hazard.	0
R102	Open		Normal operation.	50
R152	Open		Output voltage decreased. No hazard.	0
R201	Open		Output voltage decreased. No hazard.	0
R401	Open		Output voltage decreased. No hazard.	0
R501	Open		Output voltage decreased. No hazard.	0
R510	Open		Output voltage decreased. No hazard.	0
R522	Open		Normal operation.	50
R603	Open		Output voltage decreased. No hazard.	10.8

## ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
R608	Open		Output voltage decreased. No hazard.	10.8
R652	Open		Normal operation.	50
R653	Open		Output voltage decreased. No hazard.	38.3
T301	Open	4	Output voltage decreased. No hazard.	0
	Short	1-2	Output voltage decreased. No hazard.	0
		3-4	Output voltage decreased. No hazard.	0
		5-6	Output voltage decreased. No hazard.	0
TR211	Short	B-C	Output voltage decreased. No hazard.	0
TR301	Short	D-S	Output voltage decreased. No hazard.	0
		G-D	Output voltage decreased. No hazard.	0
TR302	Short	D-S	Output voltage decreased. No hazard.	0
		G-D	Output voltage decreased. No hazard.	0