



AUTOMATIC TRANSFER SWITCH TEST



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
 ADDRESS _____ JOB # FORMS-ALL
 USER SAMPLE FORMS COMPANY
 OWNER REPRESENTATIVE _____ TELEPHONE _____
 DATE 5/7/2008 TEMPERATURE _____ °F HUMIDITY _____ % EQPT. LOCATION _____
 SUBSTATION TRANSFER SWITCHES POSITION GENERAL

NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ CONTROLS TYPE: ELECTROMECHANICAL SOLID STATE MICROPROCESSOR
 INSTALLED OPTIONS _____

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS			
INSULATING MEMBERS			
MECHANICAL CONNECTIONS			
STRUCTURAL MEMBERS			
MAIN CONTACTS			
ARCING CONTACTS			

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARCING CHUTES			
OPERATING MECHANISM			
CONTACT SEQUENCE			
GROUND CONNECTION			
AUXILIARY DEVICES			
LOAD CONDUCTOR NO. _____			
SIZE _____			
CU _____			
AL _____			

TIME DELAYS	AS FOUND	SPECIFIED	AS LEFT
OVERRIDE MOMENTARY OUTAGES ADJUSTMENT RANGE: FACTORY SET @ _____ SEC			
TRANSFER TO EMERGENCY ADJUSTMENT RANGE: FACTORY SET @ _____ SEC			
NO LOAD ENGINE COOL DOWN ADJUSTMENT RANGE: FACTORY SET @ _____ MIN			
RE-TRANSFER TO NORMAL ADJUSTMENT RANGE: FACTORY SET @ _____ MIN			
SENSOR SETTINGS NOMINAL VOLTAGE:	VOLTS & HZ	%	VOLTZ & HZ
			%
NORMAL SOURCE PICKUP VOLTAGE ADJUSTMENT RANGE: FACTORY SET @ _____ %	PHASE A		
	PHASE B		
	PHASE C		
NORMAL SOURCE DROPOUT VOLTAGE ADJUSTMENT RANGE: FACTORY SET @ _____ %	PHASE A		
	PHASE B		
	PHASE C		
EMERGENCY SOURCE VOLTAGE ADJUSTMENT RANGE: FACTORY SET @ _____ %	PICKUP		
	DROPOUT		
EMERGENCY SOURCE FREQUENCY ADJUSTMENT RANGE: FACTORY SET @ _____ %	PICKUP		
	DROPOUT		

POLE RESISTANCE

TESTED FROM LINE TO LOAD TERMINALS

EQPT. TEMP _____ °C

TCF TO 20 °C _____

COMMENTS:

DEFICIENCIES:

POLE	NORMAL			
	AS FOUND	20 °C	AS LEFT	20 °C
phA				
phB				
phC				
phN				

POLE	EMERGENCY			
	AS FOUND	20 °C	AS LEFT	20 °C
phA				
phB				
phC				
phN				

EQPT. INVENTORY NO. _____

TESTED BY: _____



AUTOMATIC TRANSFER SWITCH TEST TS UNIT



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
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NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ CONTROLS TYPE: ELECTROMECHANICAL SOLID STATE MICROPROCESSOR
 INSTALLED OPTIONS _____

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input type="checkbox"/>		
INSULATING MEMBERS	<input type="checkbox"/>		
MECHANICAL CONNECTIONS	<input type="checkbox"/>		
STRUCTURAL MEMBERS	<input type="checkbox"/>		
CUBICLE	<input type="checkbox"/>		
RACKING DEVICES	<input type="checkbox"/>		
CONTACT FINGERS	<input type="checkbox"/>		
MAIN CONTACTS	<input type="checkbox"/>		
ARCING CONTACTS	<input type="checkbox"/>		
ARC CHUTES	<input type="checkbox"/>		
OPERATING MECHANISM	<input type="checkbox"/>		
CONTACT SEQUENCE	<input type="checkbox"/>		
GROUND CONNECTION	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
LOAD CONDUCTOR NO./ PHASE:	SIZE:	KCM: <input type="checkbox"/> CU <input type="checkbox"/> AL	

POLE RESISTANCE

EQUIPMENT TEMPERATURE _____ °C TEMPERATURE CORRECTION FACTOR 20°C, TCF _____

R_T = TOTAL POLE RESISTANCE AT 85 °C
 R_M = TOTAL POLE RESISTANCE AT TEST TEMPERATURE
 T_S = TEMPERATURE FOR DESIRED RESISTANCE (20 °C)
 T_M = AMBIENT TEMPERATURE
 T_K = TEMP. RESISTANCE CONSTANT (°C)
 COPPER = 234.5 °C

$$R_T = R_M \frac{T_S + T_K}{T_M + T_K}$$

NORMAL				
POLE	AS FOUND	20 °C	AS LEFT	20 °C
phA				
phB				
phC				
phN				

MICRO-OHMS LINE TO LOAD

EMERGENCY				
POLE	AS FOUND	20 °C	AS LEFT	20 °C
phA				
phB				
phC				
phN				

MICRO-OHMS LINE TO LOAD

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. _____

TESTED BY: _____



AUTOMATIC TRANSFER SWITCH CONTROLS TEST



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NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ CONTROLS TYPE: ELECTROMECHANICAL SOLID STATE MICROPROCESSOR
 INSTALLED OPTIONS _____

TIME DELAYS	AS FOUND	SPECIFIED	AS LEFT
OVERRIDE MOMENTARY OUTAGES ADJUSTMENT RANGE: FACTORY SET @ _____ SEC			
TRANSFER TO EMERGENCY ADJUSTMENT RANGE: FACTORY SET @ _____ SEC			
NO-LOAD ENGINE COOL DOWN ADJUSTMENT RANGE: FACTORY SET @ _____ MIN			
RE-TRANSFER TO NORMAL ADJUSTMENT RANGE: FACTORY SET @ _____ MIN			

NOMINAL VOLTAGE: _____

SENSOR SETTINGS		AS FOUND		SPECIFIED		AS LEFT	
		VOLTS & HZ	%	VOLTZ & HZ	%	VOLTS & HZ	%
NORMAL SOURCE PICKUP VOLTAGE ADJUSTMENT RANGE: FACTORY SET @ _____ VOLTS	PHASE A						
	PHASE B						
	PHASE C						
NORMAL SOURCE DROPOUT VOLTAGE ADJUSTMENT RANGE: FACTORY SET @ _____ VOLTS	PHASE A						
	PHASE B						
	PHASE C						
EMERGENCY SOURCE VOLTAGE ADJUSTMENT RANGE: FACTORY SET @ _____ VOLTS	PICKUP						
	DROPOUT						
EMERGENCY SOURCE FREQUENCY ADJUSTMENT RANGE: FACTORY SET @ _____ HERTZ	PICKUP						
	DROPOUT						

COMMENTS:

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DEFICIENCIES:

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EQPT. INVENTORY NO. _____

TESTED BY: _____



ASCO TRANSFER SWITCH CALIBRATION REPORT NEW GROUP 7 CONTROL PANEL



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NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ CONTROLS TYPE: ELECTROMECHANICAL SOLID STATE MICROPROCESSOR
 INSTALLED OPTIONS _____

	TIME DELAYS	AS FOUND	SPECIFIED	AS LEFT
S1	OVERWRITE MOMENTARY OUTAGES			
	ADJUSTMENT RANGE 0 TO 6 SEC. OFF OFF ON OFF			
	FACTORY SET @ 1 SEC. 5 6 7 8	5 6 7 8 SEC	5 6 7 8 SEC	5 6 7 8 SEC
S2	TIMING TEST RESULTS			
	RETRANSFER TO NORMAL			
	ADJUSTMENT RANGE 0 TO 30 MIN. OFF OFF ON OFF			
S3	FACTORY SET @ 30 MIN. 1 2 3 4	1 2 3 4 MIN	1 2 3 4 MIN	1 2 3 4 MIN
	TIMING TEST RESULTS			
	NO LOAD ENGINE COOL DOWN			
S4	ADJUSTMENT RANGE 0 TO 60 MIN. OFF OFF ON OFF			
	FACTORY SET @ 5 MIN. 5 6 7 8	5 6 7 8 MIN	5 6 7 8 MIN	5 6 7 8 MIN
	TIMING TEST RESULTS			
S5	TRANSFER TO EMERGENCY			
	ADJUSTMENT RANGE 0 TO 5 MIN. OFF OFF OFF OFF			
	FACTORY SET @ 0 SEC. 1 2 3 4	1 2 3 4 SEC	1 2 3 4 SEC	1 2 3 4 SEC
S6	TIMING TEST RESULTS			
	SENSOR SETTINGS		VOLTS	%
	NORMAL SOURCE PICKUP VOLTAGE	PHASE A		
ADJUSTMENT RANGE 85 TO 100%	PHASE B			
FACTORY SET @ 90%	PHASE C			
S7	DIP SWITCH OFF ON OFF ON	5	6	7
	SETTINGS 5 6 7 8			
	EMERGENCY SOURCE VOLTAGE PICKUP	PICKUP		
S8	ADJUSTMENT RANGE 85 TO 100%	DROPOUT		
	FACTORY SET @ 90%			
	DIP SWITCH OFF ON OFF ON	1	2	3
S9	SETTINGS 1 2 3 4			
	EMERGENCY FREQUENCY OFF	8		
	FACTORY SET @ 60 HERTZ 8			
S10	PHASE SELECTION OFF	7		
	OFF = 3 PHASE ON = 1 PHASE 7			
	IN-PHASE MONITOR OFF	6		
S11	ON = ACTIVE, OFF = OFF 6			
	NORMAL SOURCE DROP-OUT VOLTAGE	PHASE A		
	ADJUSTMENT RANGE 75 TO 98%	PHASE B		
S12	FACTORY SET @ 94%	PHASE C		
	EMERGENCY FREQUENCY PICKUP	1	2	3
	ADJ. RANGE 90-100% FACTORY SET @ 95%			

COMMENTS: _____
 DEFICIENCIES: _____

EQPT. INVENTORY NO. _____ TESTED BY: _____



AUTOMATIC TRANSFER SWITCH TEST NEW GROUP 8 OR 9 CONTROL PANEL



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NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ CONTROLS TYPE: ELECTROMECHANICAL SOLID STATE MICROPROCESSOR
 INSTALLED OPTIONS _____

CONTROL PANEL

TEST

SWITCH S18 TEST - NORMAL						SWITCH S18 TESTS - EMERGENCY									
TEST KIT SWITCH NO.		CKT BOARD TEST VLTG	TEST KIT SWITCH NO.		CKT BOARD TEST VLTG	TEST KIT SWITCH NO.		CKT BOARD TEST VLTG	TEST KIT SWITCH NO.		CKT BOARD TEST VLTG				
SPECIFIED	NORMAL	2	111 - 121	AS LEFT	NORMAL	2		SPECIFIED	EMERGENCY	3	25.8 - 28.8	AS LEFT	EMERGENCY	3	
		3	28 - 31			5	10.6 - 12.2			5					
		4	10 - 11.6												
		5	10.6 - 12.2												

TIME DELAY CALIBRATION

		POTENTIO-METER/ ACTUATOR	AS FOUND		SPECIFIED		AS LEFT	
			ACTUATOR UP/DOWN	TIMING	ACTUATOR UP/DOWN	TIMING	ACTUATOR UP/DOWN	TIMING
ACC NO. 1	OVERVERRIDE MOMENTARY OUTAGES	P4 / NA						
	ADJUSTMENT RANGE 0.5 TO 6 SEC.							
	FACTORY SET @ 1 SEC.							
ACC NO. 2B	TRANSFER TO EMERGENCY	P2 / 2						
	ADJUST RANGE UP: 0-60 SEC DOWN 0-8 MIN							
	FACTORY SET @ 0 SEC.							
ACC NO. 2E	NO-LOAD ENGINE COOL DOWN	P3 / 3						
	ADJUST RANGE UP: 0-8 SEC DOWN 0.5-30 MIN							
	FACTORY SET @ 5 MINS							
ACC NO. 3	RE-TRANSFER TO NORMAL	P1 / 1						
	ADJUST RANGE UP: 0 SEC DOWN: 0.5-30 MIN							
	FACTORY SET @ 30 MINS							

SENSOR SETTINGS (120V BASE)

		READING		READING		READING	
			%		%		%
NORMAL SOURCE PICKUP VOLTAGE ADJUSTMENT RANGE 85 TO 100% FACTORY SET @ 90%	PHASE A						
	PHASE B						
	PHASE C						
NORMAL SOURCE DROPOUT VOLTAGE ADJUSTMENT RANGE 75 TO 98% FACTORY SET @ 85%	PHASE A						
	PHASE B						
	PHASE C						
EMERGENCY SOURCE VOLTAGE ADJUSTMENT RANGE 85 TO 100% FACTORY SET @ 90%	PICKUP						
	DROPOUT				15% FIXED		
EMERGENCY SOURCE FREQUENCY ADJUSTMENT RANGE 90 TO 100% FACTORY SET @ 95%	PICKUP						
	DROPOUT				12% FIXED		

COMMENTS:
 DEFICIENCIES:

EQPT. INVENTORY NO. _____ TESTED BY: _____



AUTOMATIC TRANSFER SWITCH TEST OLD GROUP 8 OR GROUP 9 CONTROL PANEL



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 SUBSTATION TRANSFER SWITCHES POSITION GENERAL

NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ CONTROLS TYPE: ELECTROMECHANICAL SOLID STATE MICROPROCESSOR
 INSTALLED OPTIONS _____

A1 BOARD						A2 BOARD											
SWITCH S18 TESTS						SWITCH S18 TESTS											
TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG						
SPECIFIED VALUES	6	115 - 125	AS FOUND VALUES	6		SPECIFIED VALUES	2	111 - 121	S14 ON	2		S14 ON	2		S14 ON	2	
	7	28.5 - 31.5		3	28 - 31		S15 OFF	3		S15 OFF	3		S15 OFF	3			
	8	10.4 - 11.9		4	9.3 - 10.3		S16 OFF	4		S16 OFF	4		S16 OFF	4			
				5	10.4 - 11.9			5			5			5			

TIME DELAY CALIBRATION

		AS FOUND	SPECIFIED	AS LEFT
ACC NO. 1	VERRIDE MOMENTARY OUTAGES			
	ADJUSTMENT RANGE 0.5 TO 6 SEC.			
	FACTORY SET @ 1 SEC.			
ACC NO. 2B	TRANSFER TO EMERGENCY			
	ADJUST RANGE UP: 0-60 SEC DOWN 0-8 MIN			
	FACTORY SET @ 0 SEC.			
ACC NO. 2E	NO-LOAD ENGINE COOL DOWN			
	ADJUST RANGE UP: 0-8 SEC DOWN 0.5-30 MIN			
	FACTORY SET @ 5 MINS			
ACC NO. 3	RE-TRANSFER TO NORMAL			
	ADJUST RANGE UP: 0 SEC DOWN: 0.5-30 MIN			
	FACTORY SET @ 30 MINS			

SENSOR SETTINGS (120V BASE)

		READING	%	READING	%	READING	%
NORMAL SOURCE PICKUP VOLTAGE ADJUSTMENT RANGE 85 TO 100% FACTORY SET @ 90%	PHASE A						
	PHASE B						
	PHASE C						
NORMAL SOURCE DROPOUT VOLTAGE ADJUSTMENT RANGE 75 TO 98% FACTORY SET @ 85%	PHASE A						
	PHASE B						
	PHASE C						
EMERGENCY SOURCE VOLTAGE ADJUSTMENT RANGE 85 TO 100% FACTORY SET @ 90%	PICKUP						
	DROPOUT				15% FIXED		
EMERGENCY SOURCE FREQUENCY ADJUSTMENT RANGE 90 TO 100% FACTORY SET @ 95%	PICKUP						
	DROPOUT				12% FIXED		

COMMENTS:
 DEFICIENCIES:

EQPT. INVENTORY NO. _____ TESTED BY: _____



AUTOMATIC TRANSFER SWITCH OLD GROUP 8 / GROUP 9 CONTROL PANEL



CUSTOMER SAMPLE FORMS COMPANY PAGE _____
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 USER SAMPLE FORMS COMPANY
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 SUBSTATION TRANSFER SWITCHES POSITION GENERAL

NAMEPLATE DATA

MANUFACTURER _____ SERIAL NO. _____ TYPE _____
 CATALOG NO. _____ SYSTEM VOLTAGE _____ AMPACITY _____
 WIRING NO. _____ CONTROLS TYPE: ELECTROMECHANICAL SOLID STATE MICROPROCESSOR
 INSTALLED OPTIONS _____

MOTHER BOARD CHECK OUT

TEST POINT	REFERENCE	AS FOUND (VAC)	AS LEFT (VAC)
NORMAL (CP14 DISCONNECTED)			
1 - 15	82.6 - 91.4 VAC		
2 - 15	82.6 - 91.4 VAC		
3 - 15	82.6 - 91.4 VAC		
4 - 15	21.8 - 24.1 VAC		
5 - 15	21.8 - 24.1 VAC		
6 - 15	21.8 - 24.1 VAC		
7 - 15	21.8 - 24.1 VAC		
8 - 15	21.8 - 24.1 VAC		
9 - 15	21.8 - 24.1 VAC		
10 - 15	28.5 - 31.5 VDC		
11 - 15	115.9 - 128.1 VDC		
EMERGENCY (CP30 DISCONNECTED)			
10 - 15	26.1 - 28.9 VDC		
12 - 15	82.6 - 91.4 VAC		
13 - 15	21.8 - 24.1 VAC		
14 - 15	21.8 - 24.1 VAC		

A1 BOARD					A2 BOARD											
SWITCH S18 TESTS					SWITCH S18 TESTS											
TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG	TEST KIT SWITCH NO.	CKT BOARD TEST VLTG			
SPECIFIED VALUES	6	115 - 125	AS FOUND VALUES	6		S14 ON	2		S14 OFF	2		S14 OFF	2			
	7	28.5 - 31.5		7			3			3			3		3	
	8	10.4 - 11.9		8			4			4			4		4	
				5	10.4 - 11.9	S15 OFF	5		S15 ON	5		S15 OFF	5			
						S16 OFF	5		S16 OFF	5		S16 ON	5			

COMMENTS: _____
 DEFICIENCIES: _____

EQPT. INVENTORY NO. _____ TESTED BY: _____