

CATERPILLAR SR4

2MM / SEBP2305

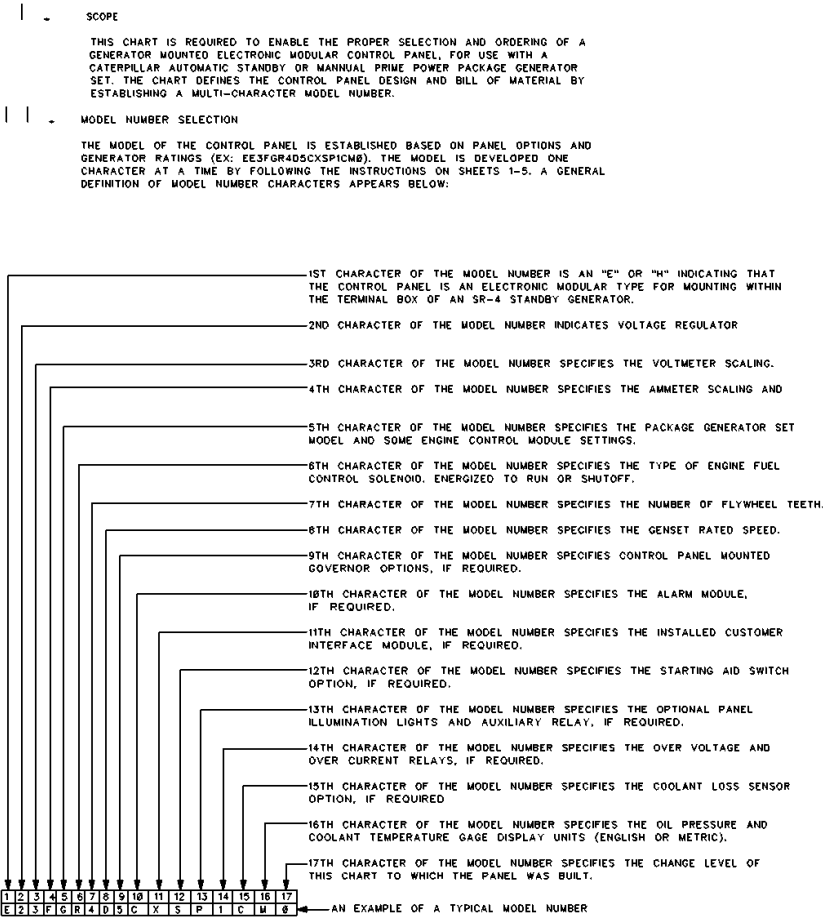
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112-7956 CHART-CONTROL PANEL

1127956 CHART-CONTROL PANEL-PART 1 OF 8

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Ref.	Part number	Description	Qty	Code	Group
Parts list rows are not synced on this VPS for SEBP2305/SEBP23050001 yet.					

112-7956 CHART-CONTROL PANEL

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DESCRIPTION OF EQUIPMENT SPECIFIED BY MODEL NUMBER

1

AN "E" AS THE FIRST CHARACTER OF THE MODEL NUMBER SPECIFIES THAT THE CONTROL PANEL IS AN ELECTRONIC MODULAR TYPE. AND "H" INDICATES THAT IT IS BUILT & TESTED TO MEET CANADIAN STANDARD ASSOC. (CSA) APPROVAL.
E=STANDARD PANEL
H=CSA APPROVED PANEL. INCLUDES FILM & 3L-0369 CSA DIELECTRIC TEST.

MODEL E23FGR4D51CXSP1CM0

2

THE SECOND CHARACTER OF THE MODEL NUMBER SPECIFIES THE SELECTIONS FOR PANEL MOUNTED VOLTAGE REGULATORS, VOLTAGE ADJUST POTENTIOMETERS, SERIES BOOST MODULE AND RFI FILTER OPTIONS IF REQUIRED.

MODEL E23FGR4D51CXSP1CM0

VOLTAGE REGULATOR		VOLTAGE ADJUST POT HARDWARE & P/N			RFI FILTER
TYPE	P/N	POT	KNOB	SEAL	P/N
X VR-4	7C-7557	7C-4471	4W-5972	7C-4550	---
1 VR-3	9Y-8400	7C-4471	4W-5972	7C-4550	---
2 VR-3	9Y-8400	7C-4471	4W-5972	7C-4550	9Y-0968
3 VR-3F	6I-2963	7C-4471	4W-5972	7C-4550	---
4 VR-3F	6I-2963	7C-4471	4W-5972	7C-4550	9Y-0968

3

THE THIRD CHARACTER OF THE MODEL NUMBER SPECIFIES THE GENERATOR AC OPERATING VOLTAGE & THE RESULTING AC METERING MODULE VOLTMETER SCALING SELECTION.

MODEL E23FGR4D51CXSP1CM0

GENERATOR VOLTAGE(S) (LINE TO LINE)		VOLTMETER SCALING SELECTION	
		PROGRAMMING	JUMPER
2	0-150 VAC L-L	150	NO
3	151-600 VAC L-L	600	YES

REF: REPUBLIC ELECTRIC AND DEVELOPMENT CO

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP2305/SEBP23050002 yet.					

112-7956 CHART-CONTROL PANEL

1127956 CHART-CONTROL PANEL-PART 3 OF 8

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- 4
- THE FOURTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE AMMETER SCALING SELECTION AND CURRENT TRANSFORMER. (GENERATOR POWER RATING MUST BE LESS THAN OR EQUAL TO VALUES GIVEN IN TABLE BELOW.)
- MODEL E23FGR4D51CXSP1CM0
- GENERATOR KW OUTPUT TABLE CALCULATED FROM RATED OUTPUT VOLTAGE AT 0.80 POWER FACTOR WITH 15% MARGIN. (GENERATOR POWER RATING MUST BE LESS THAN OR EQUAL TO VALUES GIVEN IN TABLE BELOW.)

GENERATOR KW RATING AT-VOLTAGES (L-L, RMS)											
	220 VAC	208 VAC	220 VAC	240 VAC	300 VAC	380 VAC	400 VAC	416 VAC	440 VAC	480 VAC	600 VAC
F	75	75	75	85	105	135	140	150	155	170	215
G	95	100	105	115	140	180	190	200	210	230	285
H	140	150	155	170	215	270	285	300	315	345	430
J	190	200	210	230	285	365	385	400	420	460	575
K	240	250	265	285	360	455	480	500	530	575	720
L	285	300	315	345	430	545	575	600	635	690	865
M	360	375	395	430	540	685	720	750	795	865	1080
N	480	500	530								

AMMETER (TRANSFORMER RATED)			CURRENT TRANSFORMERS ROUND		
QTY	SCALE	PROGRAM SETTING	QTY	RATIO	P/N
F 1	0- 300 AMPS	300	3	300:5	5N-5431
G 1	0- 400 AMPS	400	3	400:5	5N-5432
H 1	0- 600 AMPS	600	3	600:5	5N-5433
J 1	0- 800 AMPS	800	3	800:5	5N-5434
K 1	0-1000 AMPS	1000	3	1000:5	7W-8839
L 1	0-1200 AMPS	1200	3	1200:5	7W-8838
M 1	0-1500 AMPS	1500	3	1500:5	7W-8837
N 1	0-2000 AMPS	2000	3	2000:5	7W-8836

- 5
- THE FIFTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE PACKAGE GENERATOR SET ON WHICH THE PANEL WILL BE INSTALLED & SOME ENGINE CONTROL MODULE SETTINGS.

MODEL E23FGR4D51CXSP1CM0

PACKAGE GENERATOR SET	CHARACTER	ENGINE CONTROL MODULE SETTINGS					
		FAULT SHUTDOWN SETTINGS				OIL STEP SPEED	CRANK TERMINATION SPEED
		OIL PRESSURE		COOLANT TEMP	OVER- SPEED		
		HI RPM KPA(PSI)	LO RPM KPA(PSI)				
3306 STANDBY	G	82(12)	68(10)	113(235)	2120	1125	400 RPM
3406 STANDBY	J	206(30)	68(10)	107(225)	2120	1350	

Ref.	Part number	Description	Qty	Code	Group
			.		page
Parts list rows are not synced on this VPS for SEBP2305/SEBP23050003 yet.					

112-7956 CHART-CONTROL PANEL

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6 THE SIXTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE TYPE OF THE ENGINE FUEL CONTROL SOLENOID.

MODEL E23FGR4D51CXSP1CMØ

	FUEL CONTROL SOLENOID TYPE	PROGRAM ENGINE CONTROL MODULE FOR:	SHUT-OFF GP
R	ENERGIZED TO RUN	ENERGIZED TO RUN	111-776Ø
S	ENERGIZED TO SHUTOFF	ENERGIZED TO SHUTOFF	111-7761

7 THE SEVENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE NUMBER OF TEETH ON THE FLYWHEEL OF THE GENSET THAT THE CONTROL PANEL WILL BE INSTALLED ON. IT IS IMPORTANT THAT THE CORRECT NUMBER OF TEETH BE PROGRAMED INTO THE ENGINE CONTROL MODULE TO ASSURE PROPER OPERATION.

MODEL E23FGR4D51CXSP1CMØ

	NO. OF FLYWHEEL TEETH	PACKAGE GENERATOR SET	GENERATOR FRAME SIZE
4	113	34Ø6	ALL
5	156	33Ø6, 33Ø4	ALL

8 THE EIGHTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE RATED SPEED AT WHICH THE GENERATOR SET WILL OPERATE.

MODEL E23FGR4D51CXSP1CMØ

	RATED SPEED (RPM)
Ø	18ØØ

Ref.	Part number	Description	Qty	Code	Group page
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112-7956 CHART-CONTROL PANEL

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9 THE NINTH CHARACTER OF THE MODEL NUMBER SPECIFIES CONTROL PANEL MOUNTED GOVERNOR OPTIONS, IF REQUIRED.

MODEL E23FGR4D51CXSP1CM0

GOVERNOR OPTION	GOVERNOR TYPE	GOVERNOR GP-ELECTRONIC	GOVERNOR P/N
X NONE	CAT HYDRA-MECH	---	NOT REQUIRED
S 524/8290 GOVERNOR	ELECTRONIC SPEED SENSING	112-9664	3K-8782

10 THE TENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE ALARM MODULE IF REQUIRED.

MODEL E23FGR4D51CXSP1CM0

MODULE TYPE	PART NO.	
	MODULE/CONTROL GP	COVER PLATE
X NOT REQUIRED	NOT REQUIRED	7C-1009
A ALARM(NFFA 95)	9Y-2907	NOT REQ'D
B ALARM(NFFA 110)	9Y-2906	NOT REQ'D
C ALARM(SINGLE UNIT PRIME POWER)	7E-1234	NOT REQ'D

11 THE ELEVENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE INSTALLED CUSTOMER INTERFACE MODULE, IF REQUIRED.

MODEL E23FGR4D51CXSP1CM0

CUSTOMER INTERFACE MODULE	CONTROL GP	RELAY BOARD
X NOT REQUIRED	---	---
C CIM INSTALLED	9X-0203	9Y-6497

12 THE TWELFTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE STARTING AID SWITCH OPTION, IF REQUIRED.

MODEL E23FGR4D51CXSP1CM0

QTY	STARTING AID SWITCH	METER PANEL FILM
X 0	NOT REQUIRED	103-1837
S 1	9D-3721 MANUAL	

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP2305/SEBP23050005 yet.					

112-7956 CHART-CONTROL PANEL

1127956 CHART-CONTROL PANEL-PART 6 OF 8

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13 THE THIRTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE PANEL ILLUMINATION LIGHT GROUP AND AUXILIARY RELAY OPTIONS, IF REQUIRED.
MODEL E23FGR4D51CXSP1CM0

	QTY	LAMP HOUSING AS.	LAMP	SWITCH	PLUG BUTTON	RELAY	SOCKET
X	0	NOT REQUIRED	NOT REQ'D	NOT REQ'D	NOT REQ'D	---	--
	2	NOT REQUIRED	NOT REQ'D	NOT REQ'D	5P-4935	---	--
P	2	7G-9730	7N-5876	---	NOT REQ'D	---	--
	1	---	---	8D-2676	NOT REQ'D	3N-5714	4W-8787

14 THE THIRTEENTH CHARACTER OF THE MODEL SPECIFIES OVER VOLTAGE AND OVER CURRENT RELAYS, IF REQUIRED.

MODEL E23FGR4D51CXSP1CM0

	GEN OPERATING VOLTAGE L-L	RELAY P/N
X	NOT REQUIRED	---
1	208V OVERVOLTAGE	112-7958
2	240V OVERVOLTAGE	112-8010
3	480V OVERVOLTAGE	112-8011
4	OVERCURRENT	112-7959

15 THE FIFTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE COOLANT LOSS SENSOR OPTION, IF REQUIRED.
MODEL E23FGR4D51CXSP1CM0

	HARNESS CONNECTOR
X	NOT REQUIRED
C	3E-3367

16 THE SIXTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE UNITS USED IN DISPLAYING OIL PRESSURE AND COOLANT TEMPERATURE ON THE ENGINE CONTROL MODULE.

MODEL E23FGR4D51CXSP1CM0

	UNITS
E	ENGLISH UNITS (PSI,F)
M	METRIC UNITS (kPa,C)

17 THE SEVENTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE CHANGE LEVEL OF THIS CHART TO WHICH THE PANEL WAS BUILT.

MODEL E23FGR4D51CXSP1CM0

FOR EXAMPLE THIS MEANS CHANGE LEVEL 00.
REFER TO DRAWING TITLE BLOCK AND/OR
CONTROL PANEL IDENTIFICATION TAG FOR
ACTUAL CHANGE LEVEL.

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Parts list rows are not synced on this VPS for SEBP2305/SEBP23050006 yet.					

112-7956 CHART-CONTROL PANEL

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|||. IN ADDITION TO THE COMPONENTS SPECIFIED BY THE MODEL NUMBER, THE FOLLOWING COMPONENTS ARE REQUIRED TO COMPLETE THE CONTROL PANEL.

	PART NO.		
1	103-6176	CONTROL GP.	GEN SET STATUS CONTROL-GSC
1	3N-5979	SWITCH	ENGINE CONTROL SWITCH & KNOB
3	----	TERMINALS FOR WIRE T1,T2,T3	ETC MOLEX INC. P/N B-201-38H
1	7C-0974	FILM	WARNING ELECTRICAL SHOCK HAZARD
4		SHOCK MOUNT	SUB PAN MULTIPLE MOUNTS
1 LOT	----	INTERNAL WIRING	APPROVED BY CAT
1 LOT	----	LABELS-COMPONENT	APPROVED BY CAT
1	----	WIRING HARNESS	PANEL INTERCONNECT TO GENERATOR
3	7W-0482	FUSE	WITH SPRING SPADE TERMINALS
16	3K-8782	FUSE	2 AMP, 600 VOLT AC
			10 AMP, 32 VAC (8 INSTALLED & 8 SPARES)
1 LOT	----	SHEET METAL COMPONENTS	CONTROL PANEL ENCLOSURE COMPONENTS
1	8T-2882	HANDLE	INSTRUMENT PANEL DOOR HANDLE
1 LOT	----	TETHER(S) & ASSOC. HARDWARE	INSTRUMENT DOOR TETHER(S)
1	9Y-9771	FILM	PANEL IDENTIFICATION NAMEPLATE
1	9Y-9782	FILM	10A DC FUSE REPLACEMENT
			INFORMATION LABEL
1	9Y-9783	FILM	2A AC FUSE REPLACEMENT
			INFORMATION LABEL
1	2W-4899	DIODE	5A 600PIV FLYBACK DIODE WITH
			BLADE CONNECTORS
1	5N-4988	DIODE	5APIV FLYBACK DIODE WITH SPADE LUGS
1	101-9798	PANEL AS.	SUB PANEL ASSEMBLY
3	4P-2160	WASHER	
3	4P-2161	SCREW	METER PLATE HARDWARE
3	4P-2162	CLIP	
1	7C-4471	POTENTIOMETER	VOLTAGE LEVEL ADJUST POT.
1	7C-9179	STRIP-TERMINAL	AUXILIARY TERMINAL STRIP
1	103-1838	FILM	AUXILIARY TERMINAL STRIP FILM
1	3E-3388	RECEPTACLE AS.	8 PIN RECEPTACLE TO MATCH ATB
1	110-6845	PLUG AS.	40 PIN PLUG TO MATCH GSC
1	3E-3379	PLUG AS.	6 PIN PLUG FOR SENSOR HARNESS
4	2N-3479	SCREW	SHOCK MOUNT HARDWARE
4	4B-4274	WASHER	
4	8C-7507	LOCKWASHER	
4	4B-2049	NUT	
2	0L-2070	BOLT	MOUNTING HARDWARE
2	4D-1326	LOCKWASHER	
2	6V-8801	NUT	
1	4W-5972	KNOB	KNOB FOR VOLTAGE LEVEL ADJUST POT.
1	106-9926	FILM	COMPONENT I.D. FILM
1	9X-8124	SWITCH AS.	STARTER MOTOR MAGNETIC SW.
1	1N-9770	BREAKER AS.	CIRCUIT BREAKER
1	101-0225	CONTROL GP	AC TRANSFORMER BOX-ATB

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP2305/SEBP23050007 yet.					

112-7956 CHART-CONTROL PANEL

1127956 CHART-CONTROL PANEL-PART 8 OF 8

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GENERAL REQUIREMENTS

- 1. ALL CONTROL PANELS SHALL CONTAIN THE APPROPRIATE SPACE, WIRING, HOLES ETC. TO SUPPORT THE FIELD INSTALLATION OF ANY OPTION LISTED ON THIS CHART.
- 2. THE COMPLETED INSTRUMENT DOOR SHALL BE PAINTED FLAT BLACK.
- 3. A SUPPLIER NAMEPLATE WILL BE ATTACHED INSIDE THE PANEL. 112-7956 AND THE CONTROL PANEL MODEL NUMBER SHALL BE STAMPED ON THIS NAMEPLATE, ALONG WITH THE DATE CODE.
- 4. A COMPLETE SET OF DRAWINGS INCLUDING OUTLINE DRAWING, WIRING DIAGRAMS, SCHEMATIC DIAGRAMS, INTERCONNECT DIAGRAM SHALL BE PACKED WITH EACH CONTROL PANEL.
- 5. STANDARD HARDWARE FASTENERS USED FOR SHEETMETAL TO SHEETMETAL SECUREMENT SHALL BE TORQUED TO THE VALUES GIVEN BELOW. IN ADDITION TYPE B LOCTITE SEALANT, AS SPECIFIED BY 1E2200, SHALL BE USED EXCEPT ON INSTRUMENT PANEL DOOR FASTENERS.

SCREW SIZE (INCH)	STANDARD HARDWARE			
	NEWTON-METERS		FOOT-LBS	
	MIN	MAX	MIN	MAX
4-40	0.37	0.53	0.3	0.4
6-32	0.69	0.98	0.5	0.7
8-32	1.41	2.01	1.0	1.5
10-32	2.35	3.36	1.7	2.5
1/4-20	5.70	8.14	4.2	6.0
5/16-18	10.44	14.91	7.7	11.0
3/8-16	18.03	25.76	13.3	19.0
7/16-14	28.74	40.68	21.3	30.0
1/2-13	42.71	61.02	31.5	45.0
9/16-12	62.65	89.50	46.2	66.0
5/8-11	88.28	126.11	65.1	93.0
3/4-10	142.38	203.40	105.0	150.0
7/8-9	191.74	273.91	141.4	202.0

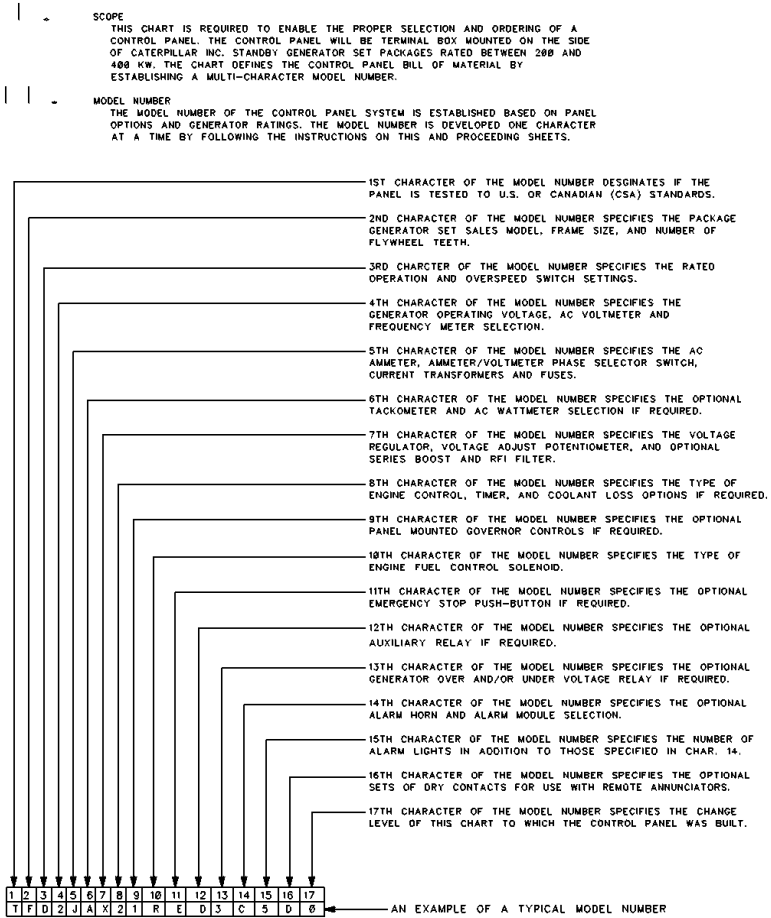
CATERPILLAR REFERENCE DRAWINGS

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1127957 CHART-CONTROL PANEL-PART 1 OF 9

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