

5N0591 MANUAL VOLTAGE CONTROL GROUP SERVICE REPAIR PARTS LIST

NOTE	ITEM	QTY.	PART NUMBER	COMPONENT
	1	1	5N0612	SWITCH
	2	1	5N0610	FUSE
	3	1	5N0603	VARISTOR AS.
	4	1	5N0605	PLATE
	5	1	5N0613	TRANSFORMER
	6	1	5N0606	HARNES
	7	1	5N9107	RECTIFIER
	8	1	5N9095	HOLDER
	9	1	7W7429	HARNES AS.

CONTROL PANEL LOCATION

WIRE SIZE - (AWG)	MAXIMUM CABLE LENGTH m (FT)
# 16	10 - (33)
# 14	15 - (50)
# 12	25 - (82)
# 10	35 - (115)

Generator 1: One (1) 200 kW, 480V Caterpillar 3208 standby diesel generator set, serial number 3KJ00716/5YF02819, batteries, battery charger, day tank and other associated equipment. Located at Building 110, Center for Aging, 110 Krukowski Road Honolulu, Hawaii 96819.

Generator 2: One (1) 750kW, 480V Caterpillar 3508 standby diesel generator set, serial number 23Z07184, batteries, battery charger, day tank, and associated equipment. Located at Building 30, Ambulatory Care Clinic, 459 Patterson Road Honolulu, Hawaii 96819.



SMCS Code No. 4450

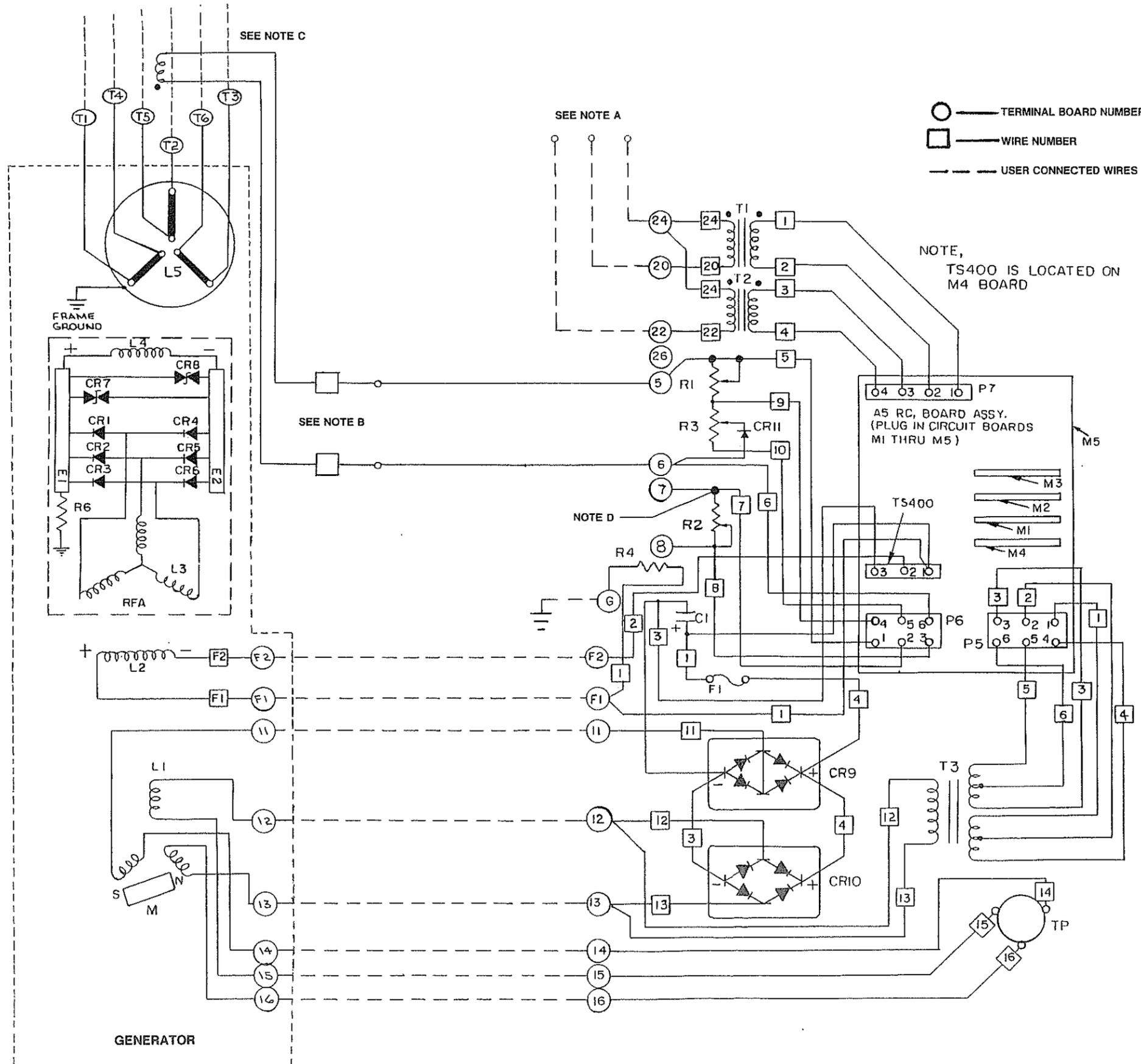
TITLE: **INSTALLATION OF MANUAL VOLTAGE CONTROL**

MODEL: **LARGE FRAME SR4 GENERATORS USING MANUAL VOLTAGE CONTROL**

GROUPS: **5N0591**

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WIRING DIAGRAM



- NOTE A: 3 PHASE VOLTAGE SENSING LEADS-CONNECT TO 120 VOLT SECONDARY OF METERING TRANSFORMERS.
- NOTE B: LEADS FROM DROOP TRANSFORMER-REQUIRED FOR PARALLEL OPERATION.
- NOTE C: DROOP TRANSFORMER-CUSTOMER INSTALLED - PASS LINE CABLE THROUGH TRANSFORMER WINDOW WITH POLARITY AS SHOWN.
- NOTE D: REMOVE THIS END OF THE VARIABLE RESISTOR IF A REMOTE VOLTAGE LEVEL CONTROL IS TO BE USED.

- A5 PC BOARD ASSEMBLY
- C1 POWER SUPPLY FILTER CAPACITOR
- CR1-6 ROTATING RECTIFIER
- CR7-8 SURGE SUPPRESSION VARISTORS
- CR9-10 RECTIFIER PACKAGE
- CR11 GAIN DIODE
- E1 POSITIVE HEATSINK
- E2 NEGATIVE HEATSINK
- F1 FUSE
- L1 PM EXCITER ARM
- L2 MAIN EXCITER FIELD
- L3 MAIN EXCITER ARM
- L4 ROTATING FIELD
- L5 STATOR
- M ROTATING PERMANENT MAGNET
- M1 SENSING & CONTROL BOARD
- M2 OVERCURRENT PROTECTION BOARD
- M3 TRIP-RESET SWITCH BOARD
- M4 EXCITATION OUTPUT BOARD
- M5 POWER SUPPLY & INTERCONNECTION BOARD
- P5-7 WIRING HARNESS PLUGS
- T1-12 POTENTIAL TRANSFORMERS
- T3 POWER TRANSFORMER
- T4 VOLTAGE DROOP TRANSFORMER
- T6-7 SENSING TRANSFORMERS
- TP THERMAL PROTECTOR
- R1 VOLTAGE DROOP RHEOSTAT
- R2 VOLTAGE LEVEL RHEOSTAT
- R3 REGULATOR GAIN RHEOSTAT
- R4 GROUND RESISTOR
- RFA REVOLVING FIELD ASSEMBLY

CATERPILLAR®
Special Instruction

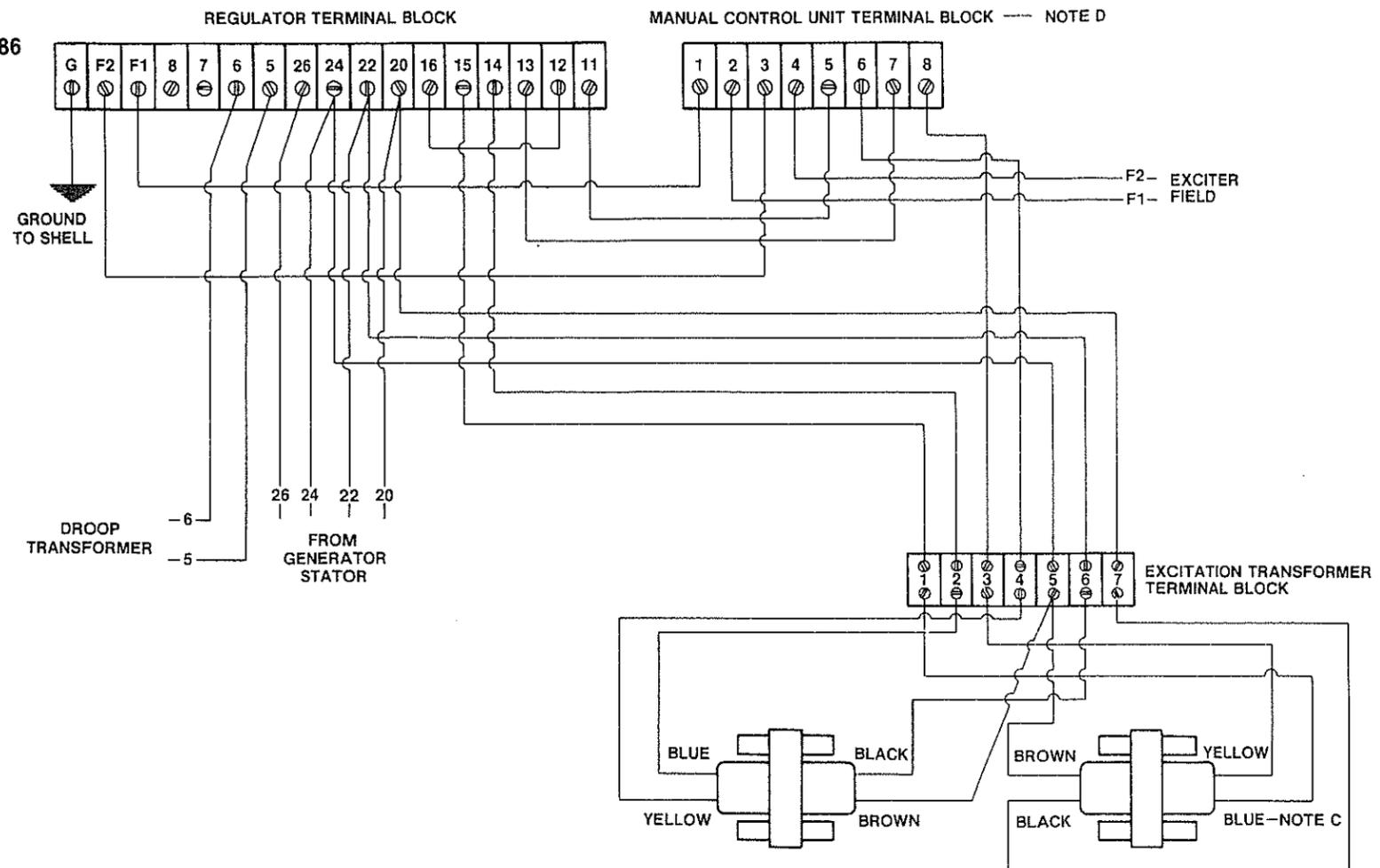
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TITLE: **MEDIUM VOLTAGE GENERATOR REGULATOR CONTROL**

MODEL: **SR4**

GROUPS: **7C2624, 7C2625, 7C2626, 7C2627, 7C2628, 7C3266**

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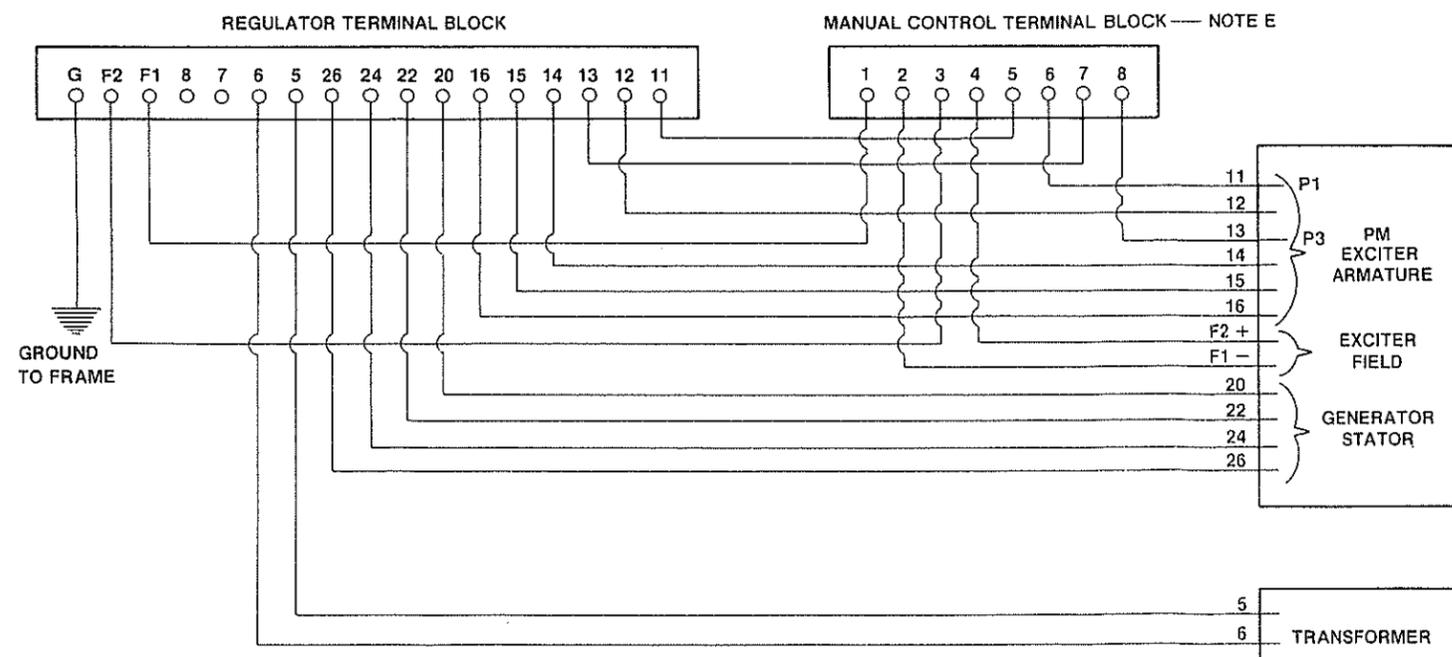


MANUAL VOLTAGE CONTROL WIRING CONNECTION DIAGRAM (SELF-EXCITED GENERATOR).
USE WITH REGULATOR 5N5103, 5N9440, 5N9441 OR 5N9481.

NOTE C: BLUE LEADS SHOWN ARE FOR 480V SYSTEM. LEADS MAY BE GREEN FOR (240V SYSTEM) OR ORANGE FOR (300V SYSTEM) OR RED FOR (600V SYSTEM).

NOTE D: WHEN THE MANUAL VOLTAGE CONTROL GROUP IS NOT USED, CONNECT THE REGULATOR AS FOLLOWS: REGULATOR TB11 TO EXCITER TRANSFORMER TB4, REGULATOR TB13 TO EXCITER TRANSFORMER TB3, REGULATOR TBF1 TO EXCITER FIELD F1, AND REGULATOR TBF2 TO EXCITER FIELD F2.

NOTE E: WHEN THE MANUAL VOLTAGE CONTROL GROUP IS NOT USED, CONNECT THE REGULATOR AS FOLLOWS: WIRE 11 (P1) TO REGULATOR TB11, WIRE 13 (P3) TO REGULATOR TB13, EXCITER FIELD F2 TO REGULATOR TBF2 AND EXCITER FIELD F1 TO REGULATOR TBF1.



MANUAL VOLTAGE CONTROL WIRING CONNECTION DIAGRAM (PERMANENT MAGNET EXCITED GENERATOR).
USE WITH REGULATOR 5N5100, 5N9439, 5N9442 OR 5N9478.



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TITLE: **INSTALLATION OF MANUAL VOLTAGE CONTROL**

MODEL: **LARGE FRAME SR4 GENERATORS USING MANUAL VOLTAGE CONTROL**

GROUPS: **5N0591**

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