

PARTS LIST
DR20H4, 50 Hz.

<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REQUIRED</u>
1	EC17506	Engine, D-2300 Hercules	1
2	G-5813	Skid Assembly	1
	3685-2	Screw 5/8-11 x 1-1/4 H.H.	2
	4621	Nut 5/8-11	2
3	S-5813-1	Coupling Disc	2
	S-6896-1	Screw 3/8-16 x 3/4 H.H.	7
	1185	Washer 3/8 Flat Steel	7
	S-6978	Dowel Pin	1
4	G-5829	Fan Assembly	1
5	S-6878-3	Spacer	4
	S-6896-5	Screw 3/8-16 x 1-3/4 H.H.	4
	1185	Washer 3/8 Flat Steel	4
6	S-6902	Fan Shroud	1
7	G-3863-2	Fan Guard Assembly	1
	3526	Screw 1/4-20 x 1 H.H.	1
	5805	Locknut 1/4-20 H.H.	2
8	G-5818-4	Stator and Stator Frame	1
	3580-2	Screw 3/8-16 x 1-1/4 Gr. #5	12
	1144	Washer 3/8 Split Lock	12
	3738	Screw 3/8-16 x 1 Soc Hd.	8
	1144	Washer 3/8 Split Lock	8
9	G-5816	Stator Frame	1
10	G-3836-26	Stator, Electrical	1
11	S-6920	Lift Eye	1
	4621	Nut 1/2-13 H.H.	1
	3540	Screw 5/16-24 H.H.	5
	1143	Washer 5/16 Split Lock	5
12	G-5817	Generator Support	1
	3578-3	Screw 3/8-16 x 1 Gr. #5	2
	1185	Washer 3/8 Flat Steel	2
	1144	Washer 3/8 Split Lock	2
13	G-5805-7	Revolving Elec. Assembly	1
14	N-587-1	Shaft	1
15	G-5710	Heat Sink Assembly	1
16	EE-2123	Diode - Forward	3
17	EE-2122	Diode - Reverse	3
18	G-5812	Rotor Electric Assembly	1
19	G-5742-2	Exciter Armature - Electric	1
20	I-825-1	Coupling Hub	1
	3887	Screw 1/2-13 Soc. Hd. Set	1
21	D-7	Bearing	1
22	G-5747-1	Exciter Frame	1
	3586	Screw 3/8-16 x 2 H.H.	3
	1144	Washer 3/8 Split Lock	3
	G-292-1	Field Pole Assembly	4
	J-436	Insulator	8
	H-1063	Field Coil Assembly	1
	3547	Screw 5/16-18 x 1-1/4 Lg.	8
	1115	Washer 5/16	8
23	S-3592	Bearing Retainer	1
	3522	Screw 1/4-20 x 1/2	2
	1114	Washer 1/4 Int. T.	1

PARTS LIST (CONT'D)
DR20H4, 50 Hz.

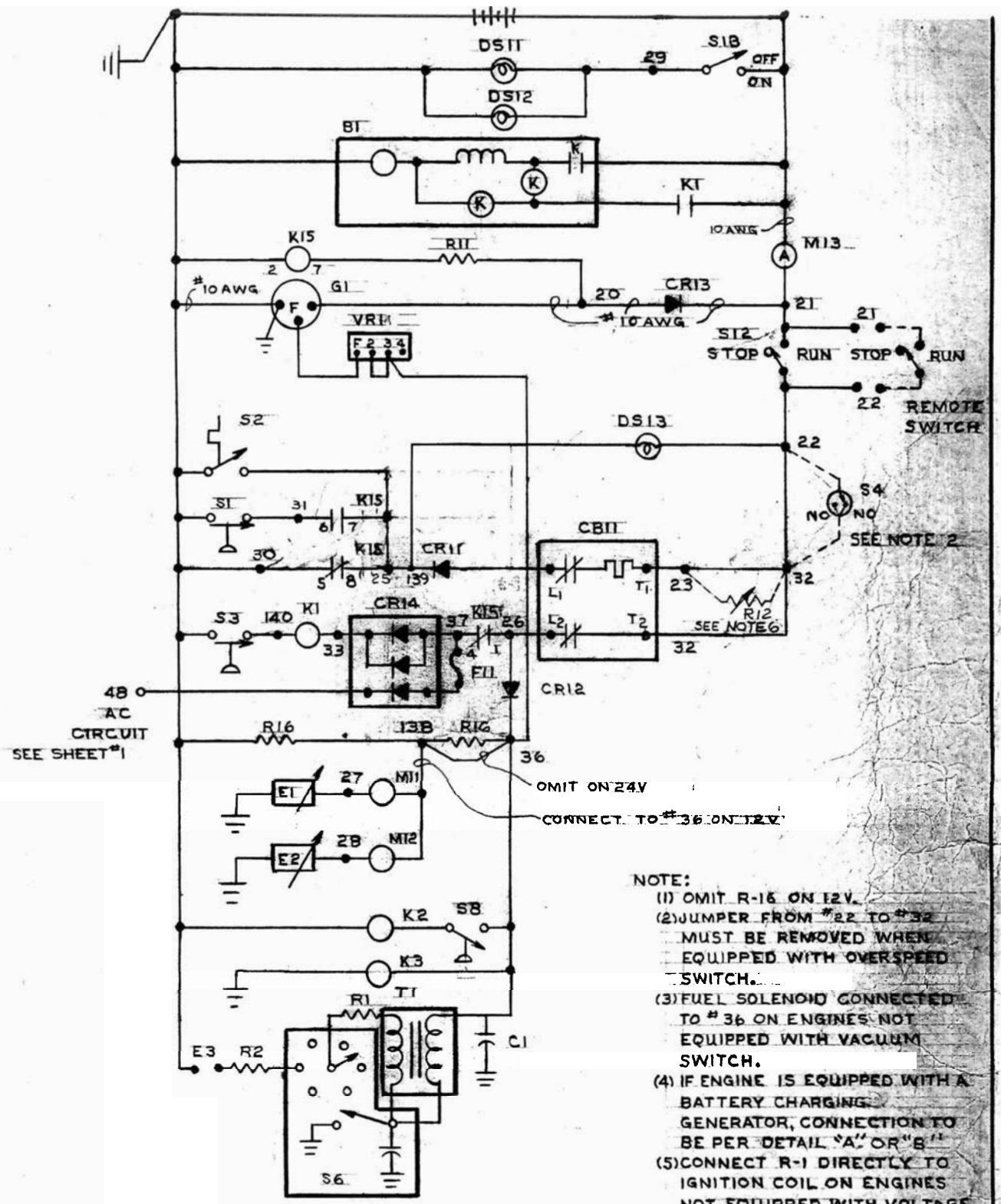
REF. NO.	PART NO.	DESCRIPTION	REQUIRED
24	I-881	Bearing Housing	1
	3580-2	Screw 3/8-16 x 1-1/4 Gr. #5	6
25	S-5872-1	Bracket	1
	3662	Screw 1/2-13 x 1 H.H.	2
	1146	Washer 1/2 Split Lock	2
26	S-6076	Angle Bracket	1
	3605	Screw 7/16-14 x 7/8 H.H.	2
	1145	Washer 7/16 Split Lock	2
	3524	Screw 1/4-20 x 3/4 H.H.	2
	5805	Locknut 1/4-20 H.H.	2
27	EE-1201	Start Contactor	1
	3524	Screw 1/4-20 x 3/4	2
	5805	Locknut 1/4-20 H.H.	2
28	3547-1	Screw 5/16-18 x 1-1/4 Brass	2
29	J-592	Washer - Nylon	1
30	J-593	Washer - 5/16 Nylon Shoulder	1
31	Z-283	Nameplate - Positive Battery	1
32	Z-284	Nameplate - Negative Battery	1
	1034	Washer 5/16 Flat Brass	6
	4710	Nut 5/16-18 Hx Brass	4
	1115	Washer 5/16 Int. T.	6
33	OP-23	Oil Pressure Switch	1
34	WT-22	Water Temperature Sender	1
35	OP-22	Oil Pressure Sender	1
36	WT-23	Water Temperature Switch	1
37	EN-18.74	Bushing	1
38	EN-18.2	Bushing	1
39	EE-267	Overspeed Device	1
40	G-5895	Fan Guard	2
41			
42	S-7013	Radiator Brace	2
	S-7011	Engine Bracket	1
	S-7012	Brace	2
43	Z-2140	Nameplate	1

Model

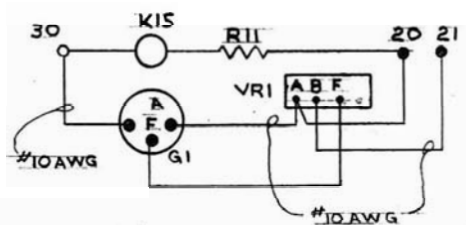
Wiring Diagram

DR20H4-C
DR20H4-P
DR20H4-D
DR20H4-J
DR20H4-T
DR20H4-N
DR20H4-L

F-4628-4
F-4628-6
F-4628-2
F-4628-5
F-4628-5
F-4628-3
F-4628-3



- NOTE:**
- (1) OMIT R-16 ON 12V.
 - (2) JUMPER FROM #22 TO #32 MUST BE REMOVED WHEN EQUIPPED WITH OVERSPEED SWITCH.
 - (3) FUEL SOLENOID CONNECTED TO #36 ON ENGINES NOT EQUIPPED WITH VACUUM SWITCH.
 - (4) IF ENGINE IS EQUIPPED WITH A BATTERY CHARGING GENERATOR, CONNECTION TO BE PER DETAIL "A" OR "B".
 - (5) CONNECT R-1 DIRECTLY TO IGNITION COIL ON ENGINES NOT EQUIPPED WITH VOLTAGE DROPPING RESISTORS.
 - (6) USED ONLY WHEN REQUIRED DO NOT USE ON STANDARD UNITS.



DETAIL 'B' (GENERATOR DELCO-REMY)
 NOTE: (DETAIL 'B')
 (1) REMOVE CR13 AND LEADS FROM #20 TO #21
 (2) NO CONNECTION FROM #36 TO VRI

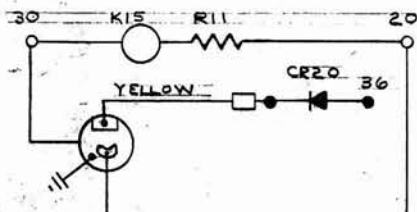
Sheet # 1A
 2-2095-2

SCHEMATIC DIAGRAM	
ENGINE ELECTRICAL CIRCUIT	
SCALE: \sim	MODEL NO.:
DATE: 6-27-72	PART NO. 1P-4628-2
DWN: FSC	CHK'D:
WINPOWER MFG. CO. NEWTON, IOWA	

37, 3625 12 NEG
 VU R20

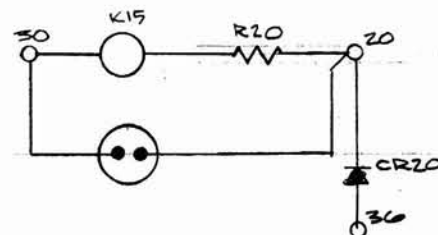
ENGINE PARTS LIST		
REF	PART NO.	DESCRIPTION
B1	SEE ENGMAN	START MOTOR W/SOLENOID SWITCH
BT1	VARIOUS	BATTERY
C1	SEE ENGMAN	CAPACITOR (SPARK IGNITED ENGINES ONLY)
E1	OP-22	SENDER - OIL PRESSURE
E2	WT-22	SENDER - WATER TEMPERATURE
E3	SEE ENGMAN	SPARK PLUG (SPARK IGNITED ENGINES ONLY)
G1	SEE NOTE #4	ALTERNATOR, OR GENERATOR (BATT CHARGE)
K1	EE-1201 (12V)	RELAY STARTER MOTOR (EE-124) 24V
K2	SEE GEN MAN	SOLENOID - FUEL
K3	SEE ENGMAN	CHOKE (GASOLINE ONLY)
R1	SEE ENGMAN	RESISTOR COIL (OPTIONAL+ SPARK IGNITED ENG. ONLY)
R2	SEE ENGMAN	RESISTORS - SPARK PLUG
S1	OP-23	SWITCH-LOW OIL PRESSURE (CLOSED 0-15 PSI)
S2	WT-23	SWITCH-HIGH WATER TEMPERATURE
S3	OP-24	SWITCH-STARTER MOTOR SAFETY (CLOSED 0-35 PSI)
S4	SEE GEN MAN	SWITCH-OVER SPEED (OPTIONAL)
S8	SEE GEN MAN	SWITCH-VACUUM (GASEOUS FUELS ONLY)
T1	SEE ENGMAN	COIL IGNITION (SPARK IGNITED ENGINES ONLY)
VR1	SEE ENGMAN	VOLTAGE REGULATOR - BATTERY CHARGING
S6	SEE ENGMAN	DISTRIBUTOR ASSEMBLY (SPARK IGNITED ENGINE ONLY)

CONTROL CABINET PARTS LIST		
REF	PART NO.	DESCRIPTION
CB11	EE-1811	CIRCUIT BREAKER-SAFETY SHUTDOWN
CR11,12	G-5183-3	RECTIFIERS - BLOCKING
CR13	G-5819	RECTIFIER - BLOCKING
CR14	G-5847	RECTIFIER - FIELD FLASHER
DS11,12	EE-940-1	LAMP - PANEL (12V)
DS13	EE-938-1	LAMP - FAILURE (12V)
F11	EE-445-2	FUSE - FIELD FLASHER
K15	EE-1207-3	RELAY - CRANKING CONTROL (12V)
M11	OP-21	GAUGE - OIL PRESSURE
M12	WT-21	GAUGE - WATER TEMPERATURE
M13	AM-12	GAUGE - AMMETER - CHARGE 30-0-30
R11	R-171	RESISTOR - 33 OHM, 10 WATT
R12	R-107	RESISTOR - 10 OHM, 25 WATT
R16	R-157	RESISTOR - 100 OHM, 10 WATT
S12	EE-151	SWITCH - ENGINE START-RUN
S13	EE-151	SWITCH - PANEL LAMP
CR20	G-5819	RECTIFIER - BLOCKING - OPT.
K20		RESISTOR - 125 OHM, 10 WATT



DETAIL "A" ALTERNATOR MOTOROLA NO. RA12N-4510 W/REGULATOR NO.R3-1

NOTE:
(1) ADD CR20 RECTIFIER.

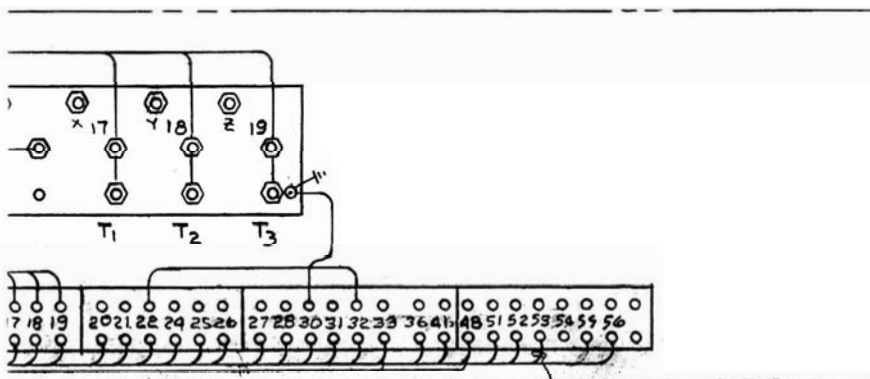
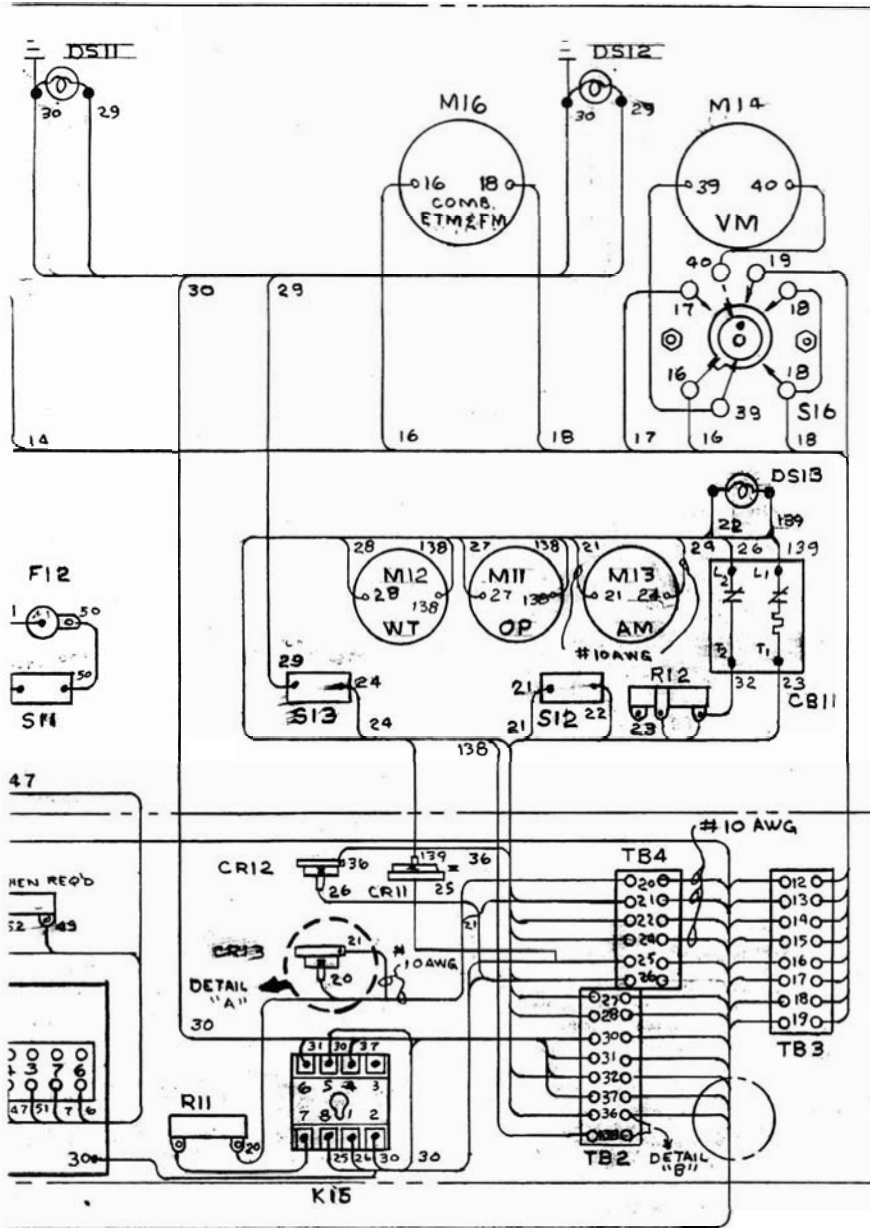


DETAIL "C" ALTERNATOR DELCO REMY #11023

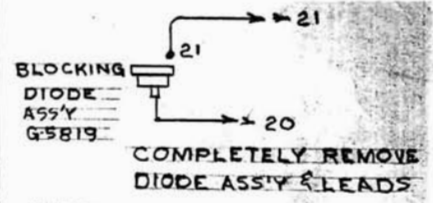
NOTE:
1. ADD RECTIFIER CR20
2. REMOVE R11 & REP

D	WAS #26, VR11	7-31-73	D.B.	F	MOVED #139 ADDED NOTE G	3-31-76	CS	
B	ADD DETAIL	1/24/73	F.C.	E	ADD DET. C	10-8-73	M.E	
	REDRAWN	6/27/72	FSC	C	ALT. TO GEN.	5-14-73	F.C.	
CHANGE	WAS ORIGINALLY	DATE	CHK'D	CHG. REQUEST				JUL 25 1977
					NO.			MICROFILM DATA JUN 9 2 1974

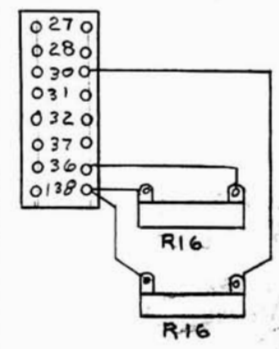
Sheet # 1 B.



MUST BE OF SUFFICIENT LENGTH FOR ALTERNATE CONNECTION TO #55.



NOTE:
 CONNECTION DIAGRAM FOR ENGINES EQUIPPED WITH BATTERY CHARGING GENERATORS.



NOTE:
 REMOVE JUMPER FROM #36 TO #138 & ADD RESISTORS R16 AS SHOWN FOR 24V.D.C. CONTROL.

NOTE:
 THIS DIAGRAM IS SUITABLE FOR REMOTE 12 & 24 VOLT D.C. ENGINE CONTROL AND 120/208, 240/416, 277/480 OR 120/240 VOLT A.C. 3 PHASE GENERATOR CONTROL, EXCEPT THAT FOR HIGH VOLTAGE UNITS M16 MUST BE ISOLATED BY STEP DOWN TRANSFORMER.

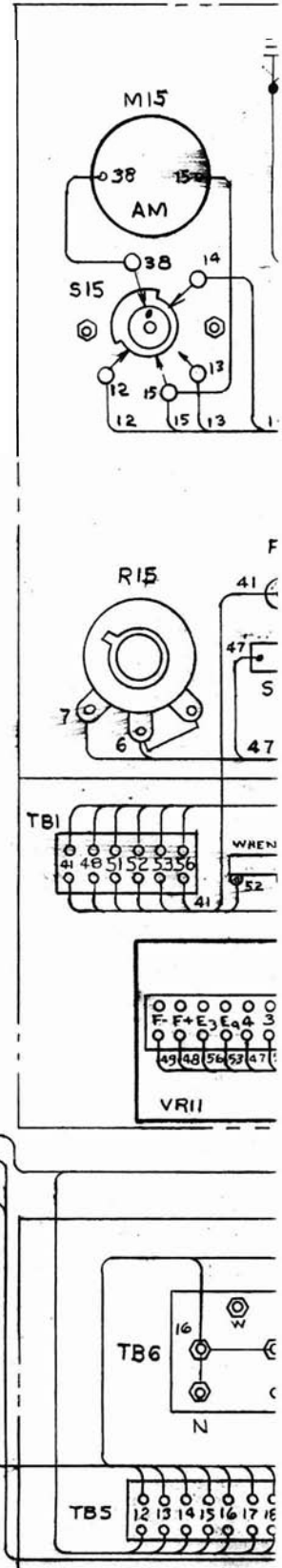
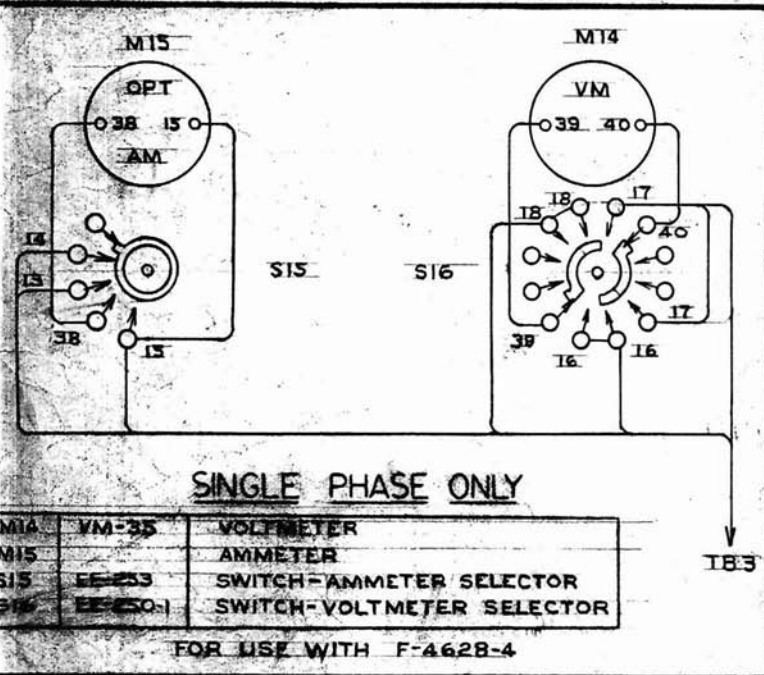
Z-2095
WIRING DIAGRAM -
GENERATOR, INSTRUMENTS,
VOLTAGE REGULATOR,
AND ENGINE CONTROLS

SCALE	MODEL NO.
DATE 6-21-72	PART NO. JF4428
DWN. ESC	CHK'D

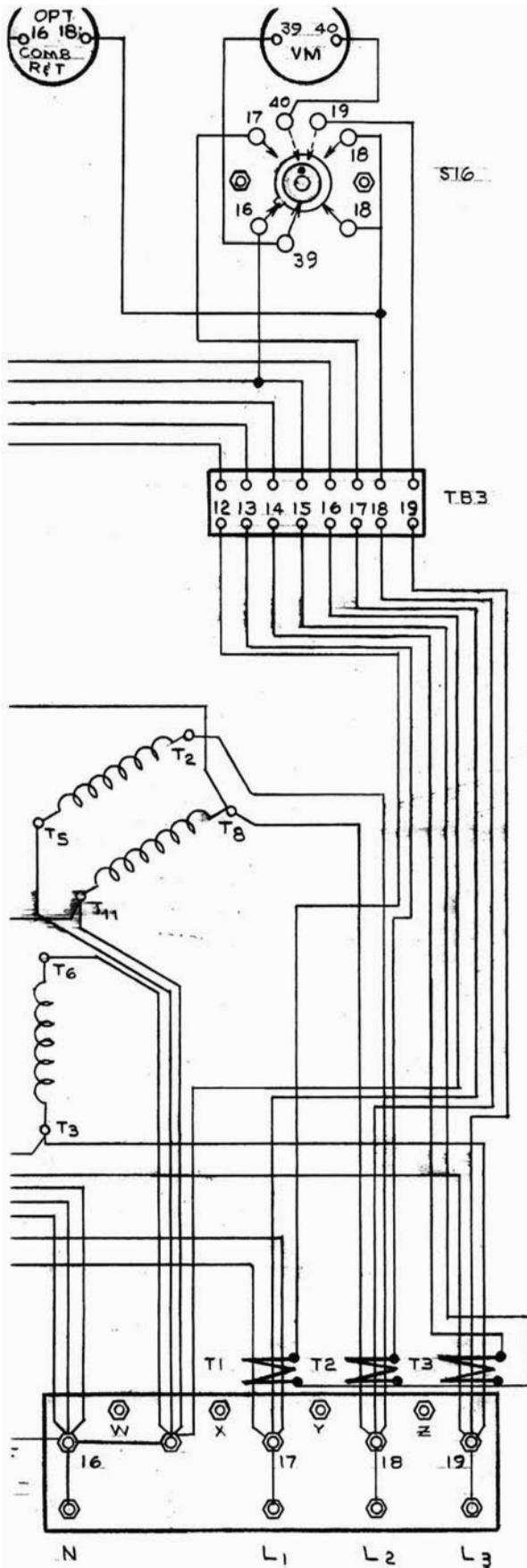
WINPOWER MFG. CO.

(12V) CONTROL CABINET PARTS LIST (12VDC)		
REF	PART NO.	DESCRIPTION
CB11	EE-1811	CIRCUIT BREAKER - SAFETY SHUTDOWN
CR11,12	G-5183-3	RECTIFIER - BLOCKING
CR13	G-5819	RECTIFIER - BLOCKING
CR14	G-5847	RECTIFIER - FIELD FLASHER
DS11,12	EE-940-1	LAMP - PANEL
DS13	EE-938-1	LAMP - FAILURE
F11	EE-443-2	FUSE - FIELD FLASHER
K15	EE-12073	RELAY - CRANKING CONTROL
M11	OP-21	GAUGE - OIL PRESSURE
M12	WT-21	GAUGE - WATER TEMPERATURE
M13	AM-12	GAUGE - AMMETER - CHARGE - 30-0-30
M14	VM-35	VOLTMETER A.C. 0-500V
M15		AMMETER - AC - AMPS
M16		COMBINATION E.T.M. & F.M. OR F.M. OR E.M.
R11	R-171	RESISTOR - 33 OHM, 10 WATT
R12	R-107	RESISTOR - 10 OHM, 25 WATT
R15	R-91	RHEOSTAT - VOLTAGE REGULATOR
R16	EE-471-2	FUSE - VOLTAGE REGULATOR
S11	EE-151	SWITCH - VOLTAGE REGULATOR
S12	EE-151	SWITCH - ENGINE START - RUN
S13	EE-151	SWITCH - PANEL LAMPS
S15	EE-276	SWITCH - AMMETER SELECTOR
S16	EE-275	SWITCH - VOLTMETER SELECTOR
TB1,2,3		TERMINAL STRIP - TOP CABINET
TB5		TERMINAL STRIP - LOWER CABINET
TB6		TERMINAL STRIP - MAIN LOAD
T1,2,3		TRANSFORMER - AMMETER CURRENT
VR11	EE-1750	VOLTAGE REGULATOR - GENERATOR

(24V) CONTROL CABINET PARTS LIST SUPPLEMENT (24VDC)		
REF	PART NO.	DESCRIPTION
DS11,12	EE-936-1	LAMP, PANEL
DS13	EE-938	LAMP, FAILURE
K15	EE-12074	RELAY - CRANKING CONTROL
R16	R-157	RESISTOR - 100 OHM, 10 WATT. (OPTIONAL)



CORRECTED	REVISION	BY	DATE	REASON
REDESIGNED	6-21-72	F.S.G.		
WAS ORIGINALLY	DATE	CHK'D	CHK. REQUEST	
				JUL 25 1977
				NO. MICROFILM DATA I I I N 9 7 1078



CONTROL CABINET PARTS LIST		
REF	PART NO.	DESCRIPTION
CR15	EE-2122	RECTIFIER
CR16	EE-2123	RECTIFIER
F12	EE-445.02	FUSE - VOLTAGE REGULATOR 3-AMP
M14	VM-35	VOLTMETER AC 0-500 VOLT
M15	—	AMMETER AC
M16	—	COMB ETM 1/2 FM OR ETM OR FM
R15	R-91	RHEOSTAT - VOLTAGE ADJUSTMENT
S11	EE-151	SWITCH - VOLTAGE REGULATOR
S16	EE-275	SWITCH - VOLTMETER SELECTOR
T1,2,3	—	TRANSFORMER, CURRENT
TB1,3	—	TERMINAL BOARD, TOP CABINET
TB5	—	TERMINAL BOARD, LOWER CABINET
TB6	—	TERMINAL BOARD, MAIN LOAD
VR11	EE-1750	VOLTAGE REGULATOR
S15	EE-276	SWITCH - AMMETER SELECTOR

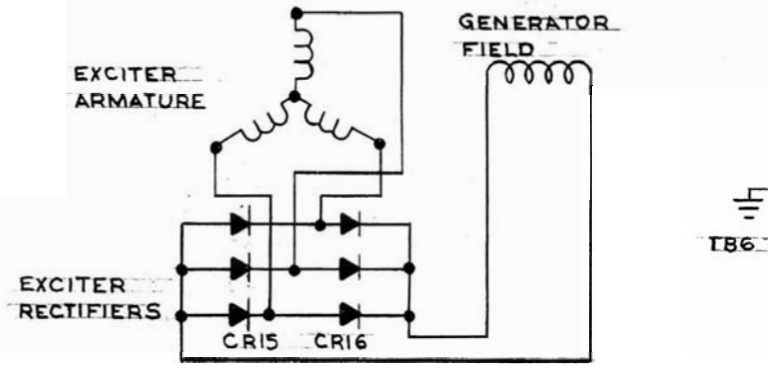
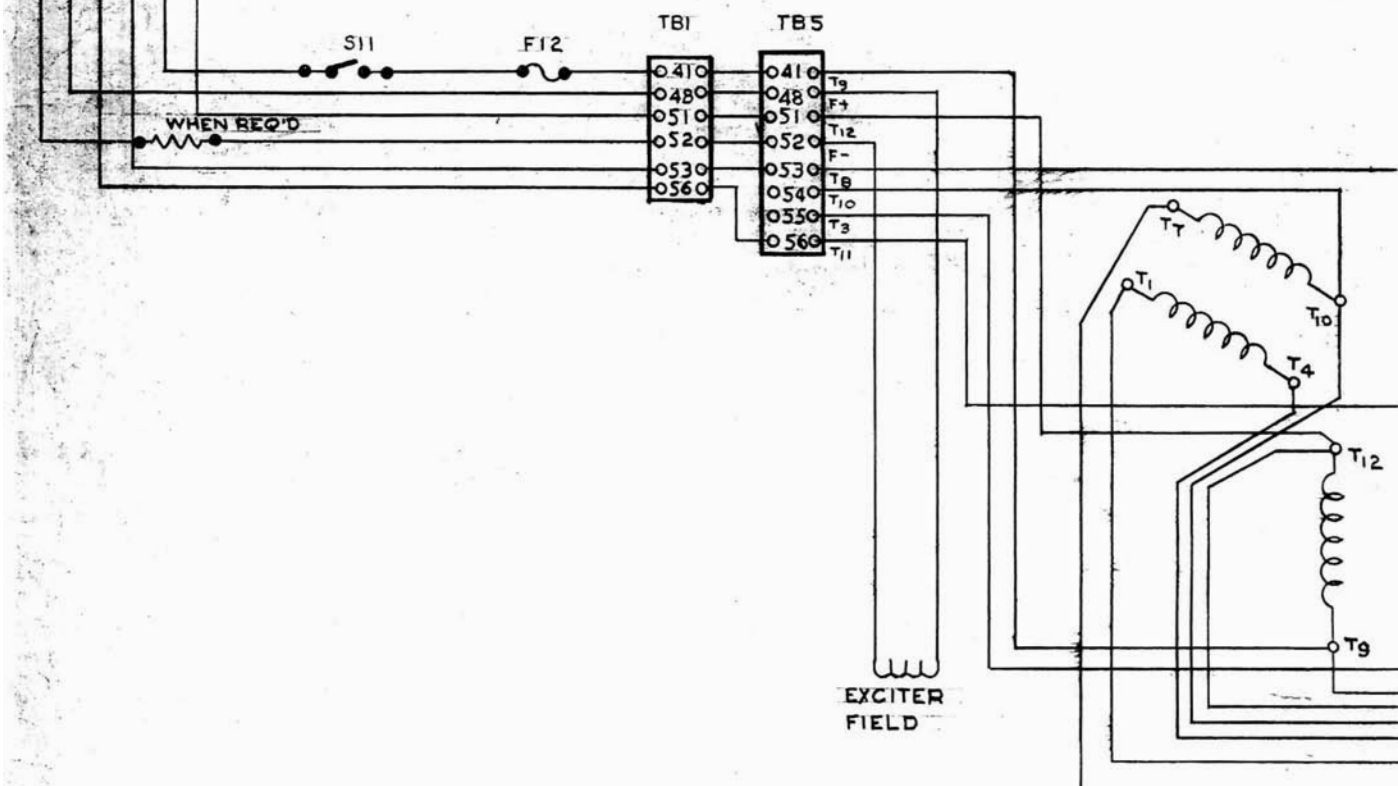
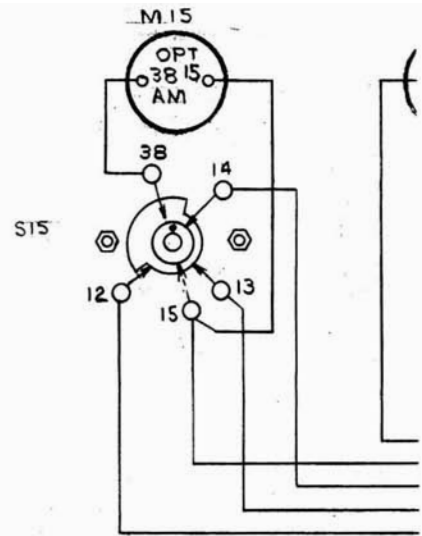
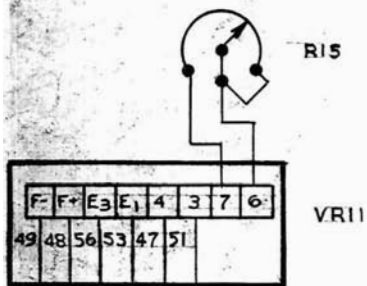
120/208 TO 139/240 VOLT, 60 HZ
 115/200 TO 133/233 VOLT, 50 HZ

Sheet # 3A

Z-2095-2

SCHEMATIC DIAGRAM - GENERATOR, REGULATOR	
INSTRUMENTATION	
SCALE	MODEL NO.
DATE 6-26-72	PART NO. 1F-4028
DWN FSC	CHK'D

WINPOWER MFG. CO.
 NEWTON, MASS.



REDRAWN	6-2672	FSC				
WAS ORIGINALLY	DATE	CHK'D	CHG. REQUEST			JUL 25 1977

Sheet # 3B