

200 2-15-77



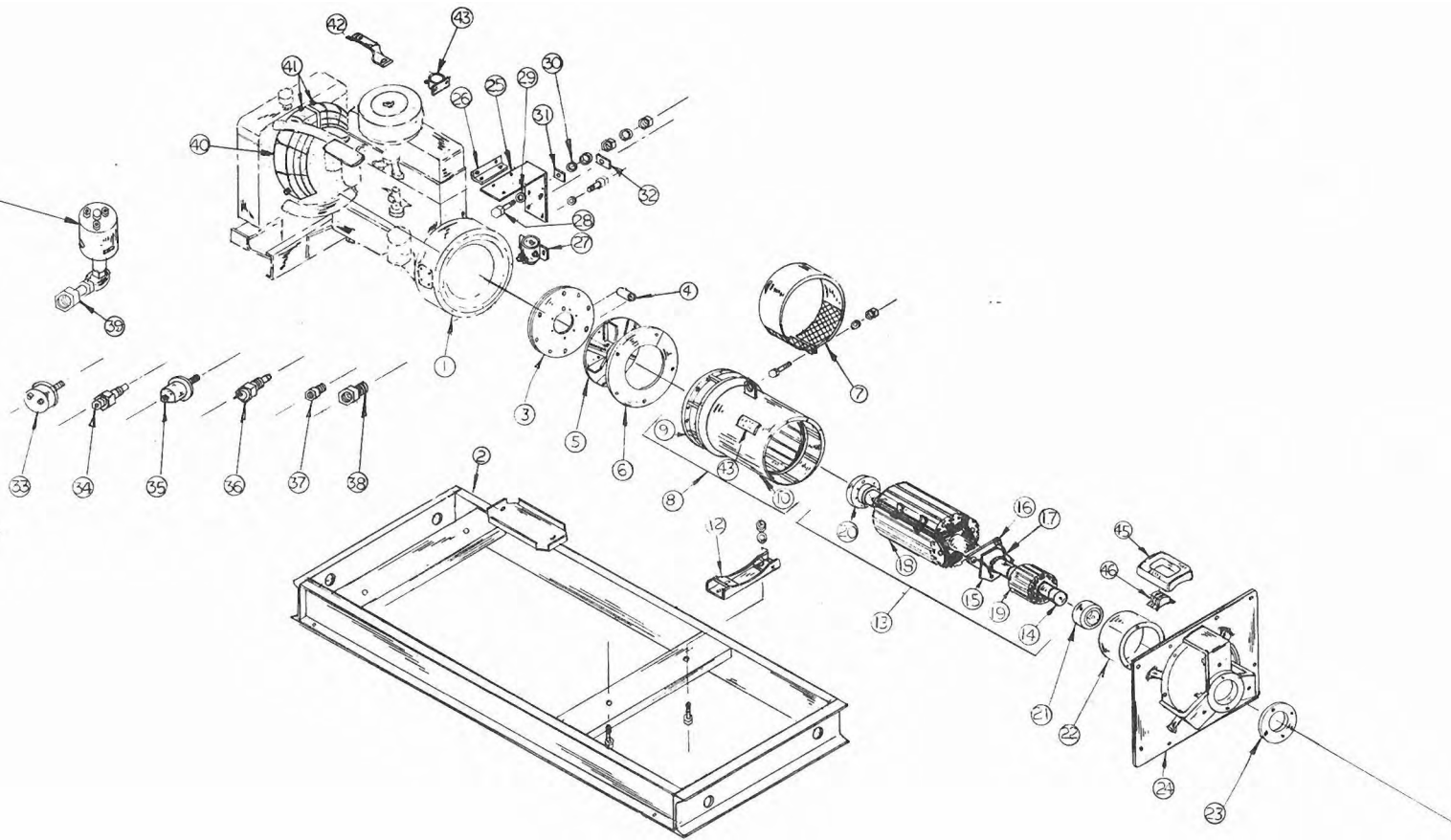
WINPOWER CORPORATION

Model GR30H4-D/N Type II  
 30 KW 37.5 KVA .8 P.F. 60 HZ  
 3 Phase 104.1Amps 4 Wire  
 120/208 Volts 130°C Rise  
 Wiring Diagram IF-5216-2  
 Released: 12-22-76

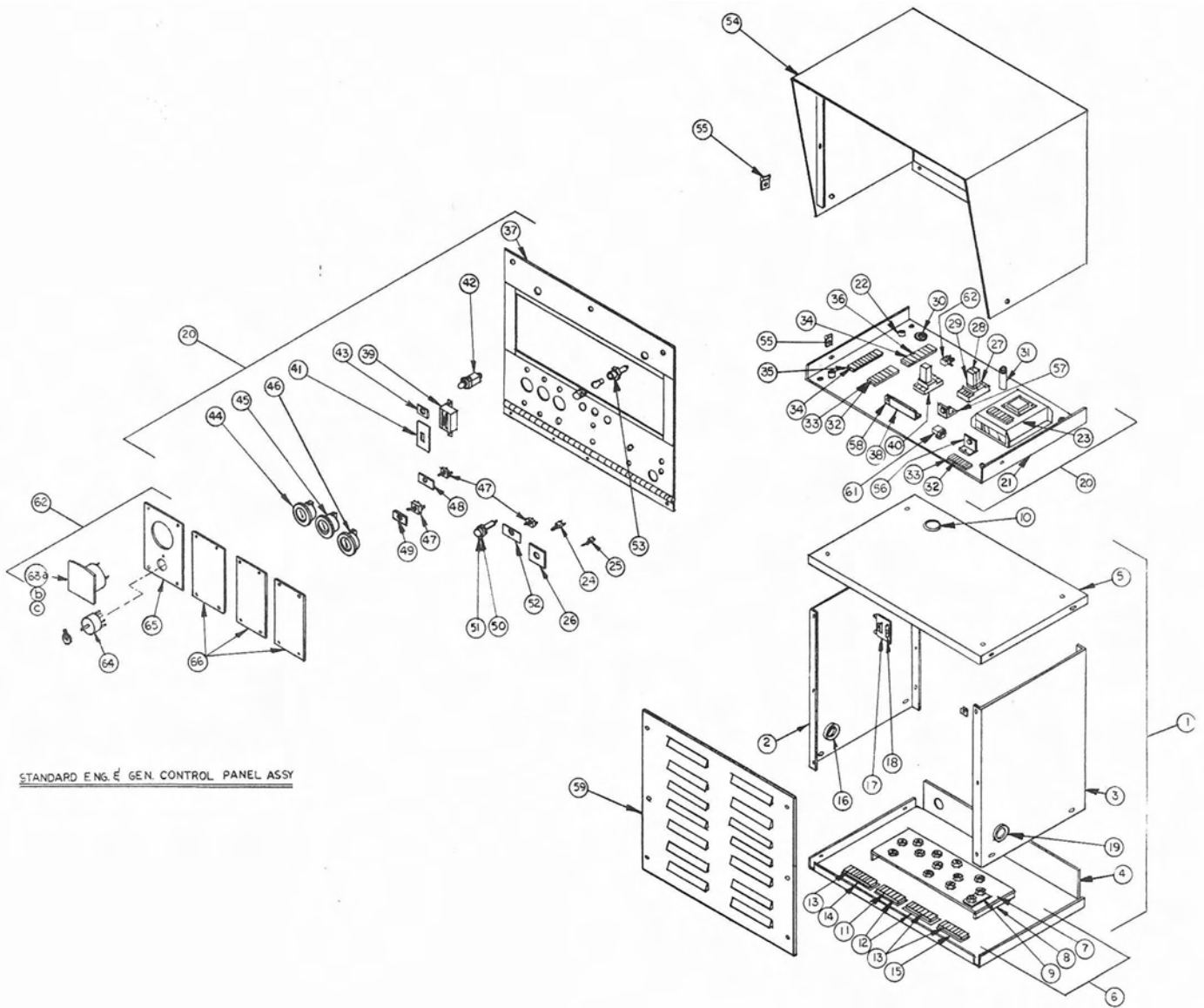
| REF. NO. | PART NO.       | PART DESCRIPTION                 | REQ'D/UNIT |
|----------|----------------|----------------------------------|------------|
| 1        | EC-17505       | Engine Hercules G-2300           | 1          |
| 2        | G-6407         | Skid Assembly                    | 1          |
|          | 3685-2         | Screw 5/8-11 x 1-1/4             | 2          |
|          | 1189           | Washer 5/8 Flt. Stl.             | 2          |
|          | 4621           | Nut 5/8-11 Hx                    | 2          |
|          | 1148           | Washer 5/8 Lock                  | 2          |
| 3        | S-5813-1       | Coupling Disc                    | 2          |
|          | S-6896-1       | Screw 3/8-16 x 3/4               | 7          |
|          | 1185           | Washer 3/8 Flat Steel            | 7          |
| 4        | S-6878-4       | Fan Spacer                       | 4          |
|          | S-6896-1       | Screw 3/8-16 x 2                 | 4          |
| 5        | G-5829         | Fan Assembly                     | 1          |
| 6        | S-6902         | Fan Shroud                       | 1          |
| 7        | G-3863-2       | Fan Guard                        | 1          |
|          | 3526           | Screw 1/4-20 x 1                 | 1          |
|          | 5805           | Nut 1/4-20                       | 2          |
| 8        | G-5818-12      | Stator & Frame Assembly          | 1          |
| 9        | G-5816         | Frame Assembly                   | 1          |
| 10       | G-6881         | Stator, Electrical               | 1          |
| 11       | Not Applicable |                                  |            |
| 12       | G-5817         | Generator Support                | 1          |
| 13       | G-6920         | Revolving Elec. Assembly         | 1          |
| 14       | N-587-1        | Shaft                            | 1          |
| 15       | G-6303         | Heat Sink Assembly               | 1          |
| 16       | EE-2123        | Diode - Forward                  | 1          |
| 17       | EE-2122        | Diode - Reverse                  | 1          |
| 18       | G-6907         | Rotor Elec. Assembly             | 1          |
| 19       | G-6933         | Exciter, Armature                | 1          |
| 20       | I-825-1        | Coupling Hub                     | 1          |
|          | 3887           | Screw 1/2-13 x 1/2 Soc Hd        | 1          |
| 21       | D-7            | Bearing                          | 1          |
| 22       | G-6947         | Exciter Frame Assembly           | 1          |
|          | S-6906         | Exciter Frame                    | 1          |
|          | 3547           | Screw 5/16-18 x 1-1/4 Hx Hd      | 12         |
|          | 1115           | Washer T.T.                      | 12         |
|          | G-292-1        | Field Pole Assembly              | 4          |
|          | J-436          | Insulator                        | 8          |
|          | H-1202         | Field Coil Assembly              | 4          |
| 23       | S-3952         | Bearing Retainer                 | 1          |
|          | 3522           | Screw 1/4-20 x 1/2               | 2          |
|          | 1114           | Washer 1/4 Int. T.               | 2          |
| 24       | I-881          | Bearing Housing                  | 1          |
|          | 3582-2         | Screw 3/8-16 x 1-1/4 Gr 5        | 6          |
|          | 1144           | Washer Split Lock                | 6          |
| 25       | S-5872-1       | Bracket                          | 2          |
| 26       | S-6076         | Angle                            | 1          |
| 27       | EE-1201        | Start Contactor                  | 1          |
| 28       | 3547-1         | Screw 5/16-18 x 1-1/4 Brass      | 2          |
| 29       | Not Applicable |                                  |            |
| 30       | Not Applicable |                                  |            |
| 31       | Z-283          | Nameplate, Positive Battery      | 1          |
| 32       | Z-284          | Nameplate, Negative Battery      | 1          |
| 33       | OP-23          | Oil Pressure Switch              | 1          |
| 33a      | OP-24          | Oil Pressure Switch              | 1          |
| 34       | WT-22          | Water Temperature Sender 1/4 NPT | 1          |
| 35       | OP-22          | Oil Pressure Sender              | 1          |
| 36       | WT-23          | Water Temperature Switch 1/2 NPT | 1          |
| 37       | EN-18174       | Tee 1/8M to 2/8F to 1/8F         | 1          |
| 38       | EN-1820        | Bushing 3/8M to 1/4F NPT         | 1          |
| 39       | Not Applicable |                                  |            |
| 40       | G-5895         | Fan Guard                        | 2          |

PL-1773

OPTIONAL ON SOME MODELS

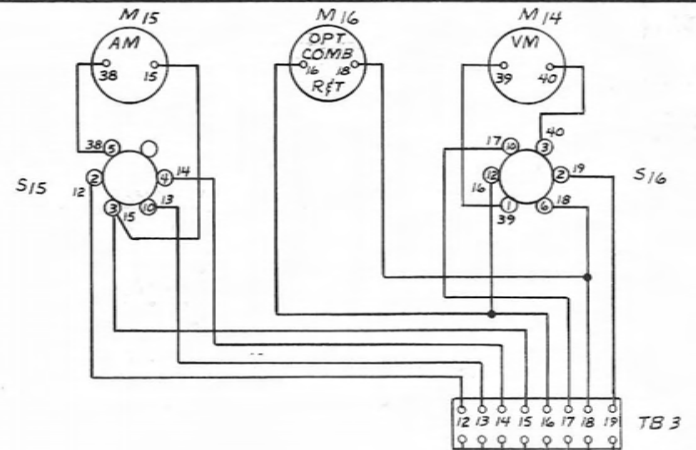
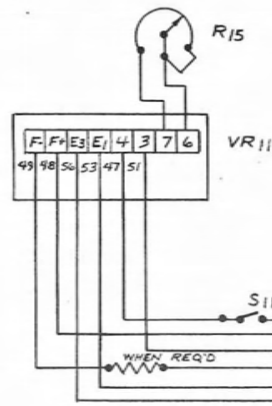


| REF. NO. | PART NO.  | PART DESCRIPTION                 | REQ'D/UNIT |
|----------|-----------|----------------------------------|------------|
| 1        | G-6863    | Panel Assy Complete 13 in. Lam.  | 1          |
| 1        | G-5740-3  | Panel Cabinet Assembly           | 1          |
| 2        | S-6860    | Panel Side - Left                | 1          |
| 3        | S-6858    | Panel Side - Right               | 1          |
| 4        | S-6857    | Panel Bottom                     | 1          |
| 5        | S-6853    | Panel Top                        | 1          |
|          | 3522      | Screw 1/4-20 x 1/2 H.H.          | 8          |
|          | 1114      | Washer 1/4 Int.                  | 8          |
|          | 5805      | Nut 1/4-20 H.H.                  | 8          |
| 6        | G-5722-1  | Terminal Board Assembly          | 1          |
| 7        | J-579     | Terminal Board                   | 2          |
|          | 3524      | Screw 1/4-20 x 3/4 H.H.          | 4          |
|          | 1114      | Washer 1/4                       | 4          |
|          | 5805      | Nut 1/4-20                       | 4          |
| 8        | S-6850    | Bracket - Mounting               | 2          |
| 9        | B-717     | Link                             | 10         |
|          | 3549-1    | Screw 5/16-18 x 1-1/2 Hex Brass  | 13         |
|          | 1115      | Washer 5/16 Int. T.T.            | 39         |
|          | 1034      | Washer 5/16 Flat Brass           | 39         |
|          | 4710      | Nut 5/16-18 Hex Brass            | 26         |
| 10       | 6100      | Grommet                          | 1          |
| 11       | EE-646-1  | Terminal Board 6-Pole            | 1          |
| 12       | EE-646-2  | Insulator                        | 2          |
|          | 2045      | Screw #8-32                      | 2          |
|          | 5802      | Nut #8-32                        | 2          |
| 13       | EE-653    | Terminal Board 8-Pole            | 3          |
| 14       | EE-653-8  | Insulator                        | 1          |
| 15       | EE-653-2  | Insulator                        | 2          |
|          | 2045      | Screw #8-32                      | 6          |
|          | 5802      | Nut #8-32                        |            |
| 16       | 6221      | Plug Button                      |            |
| 17       | EE-2214   | Auto Exciter Field Flasher       |            |
| 18       | EE-471-2  | Fuse 1 Amp.                      |            |
|          | 2005      | Screw #6 x 1/2 lg.               |            |
|          | 5801      | Nut #6-32 H.H.                   |            |
| 19       | 6905      | Bushing                          |            |
| 20       | G-6865    | Engine & Generator Sub. Assembly |            |
| 21       | S-6871    | Panel Bottom                     |            |
| 22       | W-166-2   | Shockmounts                      | 4          |
| 23       | EE-1750   | Voltage Regulator                | 1          |
|          | 2087      | Screw 10-24 x 3/4 RHMS           | 4          |
|          | 5803      | Nut #10-24                       | 8          |
| 24       | EE-233    | Push Button Switch.              | 1          |
| 25       | EE-181    | Toggle Switch on-off-on          | 1          |
| 26       | Z-1123    | Nameplate - Adjust volts         | 1          |
| 27       | EE-1207-1 | Socket - Relay                   | 1          |
|          | 2011      | Screw #6-32 x 1-1/4 RHMS         | 2          |
|          | 5801      | Nut #6-32                        | 2          |
| 28       | EE-1207-2 | Hold Down Clamp                  | 1          |
| 29       | EE-1220   | Relay                            | 1          |
|          | EE-1219   | Socket                           | 1          |
| 30       | 6100      | Grommet                          | 1          |
| 31       | R-171     | Resistor                         |            |
| 32       | EE-646-1  | Terminal Block 6-Pole            |            |
| 33       | EE-646-2  | Insulator                        |            |
| 34       | EE-653    | Terminal Block 8-Pole            |            |
| 35       | EE-653-2  | Insulator                        |            |
| 36       | EE-653-8  | Insulator                        |            |
|          | 2045      | Screw #8-32 x 1/2                |            |
|          | 5802      | Nut #8-32                        |            |
| 37       | G-5724    | Front Panel Assembly             |            |
|          | 2085      | Screw #10-24 x 1/2 Lg.           |            |
|          | 5803      | Nut #10-24                       |            |
| 38       | S-6870    | Brace                            | 1          |
|          | 2085      | Screw #10-24 x 1/2 Lg.           | 2          |
|          | 1019      | Washer                           | 2          |
| 39       | EE-1811   | Eng. Safety Circuit Breaker      | 1          |
|          | EE-1812-5 | Circuit Breaker Heater           | 1          |
| 40       | EE-1233   | Relay - Latching                 | 1          |
|          | EE-1233-1 | Relay Socket                     | 1          |
| 41       | Z-1671    | Nameplate - Engine Safety        |            |
| 42       | EE-937-1  | Failure Light                    |            |
|          | EE-933-1  | Lamp 12 Volt                     |            |
| 43       | Z-2092    | Nameplate Engine Shutdown        |            |
| 44       | AM-12     | Ammeter                          |            |
| 45       | OP-21     | Oil Pressure Gauge               |            |
| 46       | WT-21     | Water Temperature                |            |
| 47       | EE-151    | Switch                           |            |
| 48       | Z-2093    | Nameplate Stop Run               |            |
| 49       | Z-920-1   | Nameplate Off-On                 |            |
| 50       | EE-425    | Fuse Holder                      |            |
| 51       | EE-445-2  | Fuse Amp                         | 1          |
| 52       | Z-2116    | Nameplate - Regulator            | 1          |
| 53       | EE-924-1  | Panel Lamp Holder                |            |
|          | EE-940-1  | Lamp 12 Volt                     |            |
| 54       | G-5723    | Panel Top Assembly               |            |
|          | 2085      | Screw #10-24 x 1/2               |            |
|          | 5803      | Nut #10-24                       |            |
| 55       | 4957      | Tinnerman                        |            |
|          | 2325      | Screw 1/4-20 x 1/2 Truss Head    |            |
| 56       | G-5819    | Diode Assembly Blocking          |            |
|          | J-546     | Shoulder Washer - Nylon          |            |
|          | J-583     | Washer - Flat - Nylon            |            |
|          | 2087      | Screw #10-24 x 3/4               |            |
|          | 5803      | Nut #10-24                       |            |
| 57       | G-5183-3  | Diode Assembly Blocking          |            |
| 58       | 4956      | Tinnerman                        | 1          |
|          | 6224      | Plug Button 23/32 Dia.           | 3          |
|          | 6223      | Plug Button 1" Dia.              | 3          |
|          | 6218      | Plug Button 1/2" Dia.            | 2          |
| 59       | G-5724    | Panel Front                      |            |
|          | 4957      | Tinnerman                        |            |
|          | 3522      | Screw 1/4-20 H.H.                |            |
|          | 1183      | Washer 1/4 Flat Stl.             |            |
| 60       | EE-1203   | Relay                            |            |
| 61       | EE-1054   | Time Delay Relay                 |            |
| 62       | G-6533-1  | Voltmeter & Sel. Switch Assembly |            |
| 63       | VM-69-1   | Voltmeter 0-300 Volt             |            |
| 64       | EE-275-1  | Selector Switch                  |            |
| 65       | S-6822-1  | Meter Panel                      |            |
| 66       | S-6832    | Basic Panel                      |            |

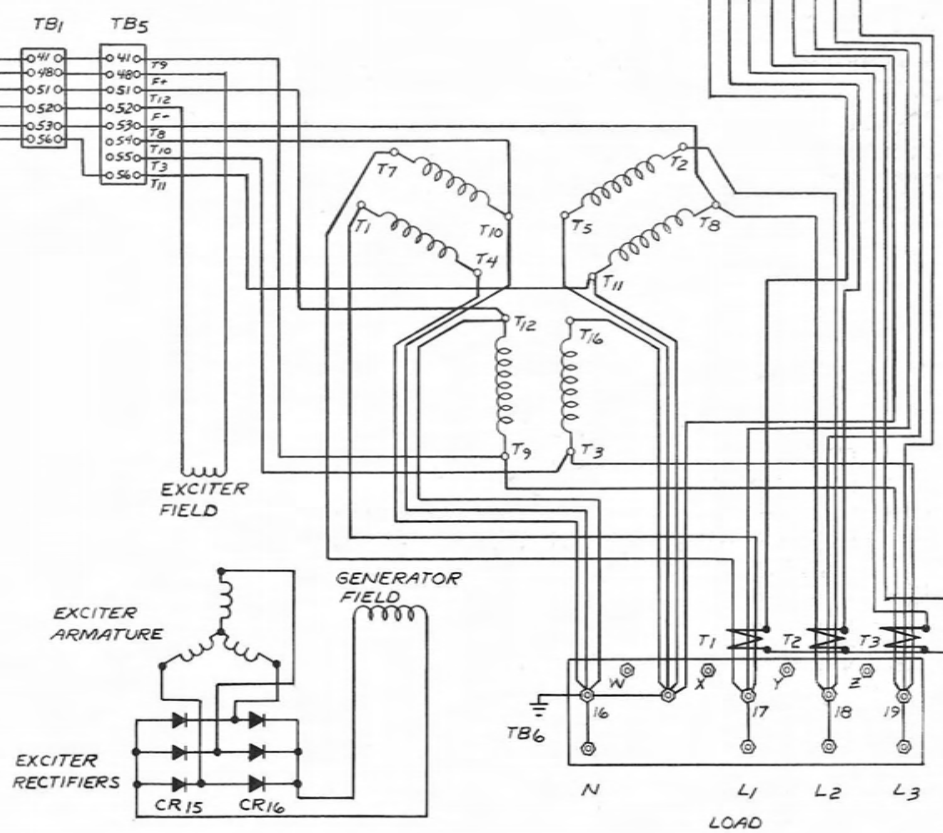


STANDARD ENG. GEN. CONTROL PANEL ASSY

IF-5188



| CONTROL CABINET PARTS LIST |          |                                |
|----------------------------|----------|--------------------------------|
| REF                        | PART NO  | DESCRIPTION                    |
| CR 15                      | EE-2122  | RECTIFIER                      |
| CR 16                      | EE-2123  | RECTIFIER                      |
| F 12                       | EE-445-2 | FUSE - VOLTAGE REGULATOR 3-AMP |
| M 14                       | VM-35    | VOLTMETER A C                  |
| M 15                       |          | AMMETER A C                    |
| R 15                       | R-91     | RHEOSTAT - VOLTAGE ADJUSTMENT  |
| S 11                       | EE-151   | SWITCH - VOLTAGE REGULATOR     |
| S 16                       | EE-275-1 | SWITCH - VOLTMETER SELECTOR    |
| T 1,2,3                    |          | TRANSFORMER, CURRENT           |
| TB 1,3                     |          | TERMINAL BOARD, TOP CABINET    |
| TB 5                       |          | TERMINAL BOARD, LOWER CABINET  |
| TB 6                       |          | TERMINAL BOARD, MAIN LOAD      |
| VR 11                      | EE-1750  | VOLTAGE REGULATOR              |
| S 15                       | EE-276-1 | SWITCH - AMMETER SELECTOR      |



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

| CHANGE | ISS ORIGINALLY | DATE | CHK'D | ENG. REQUEST | NO. REQ'D | MICROFILM DATA |
|--------|----------------|------|-------|--------------|-----------|----------------|
|        |                |      |       |              |           |                |

TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED

DECIMAL ± FRACTIONAL ± ANGULAR ±

REMOVE ALL BURRS BREAK ALL SHARP MACHINED EDGES

MATERIAL

**SCHEMATIC DIAGRAM  
 GENERATOR; REGULATOR  
 INSTRUMENTATION**

SCALE: 2-B-77  
 DATE: KH  
 DWN: KH

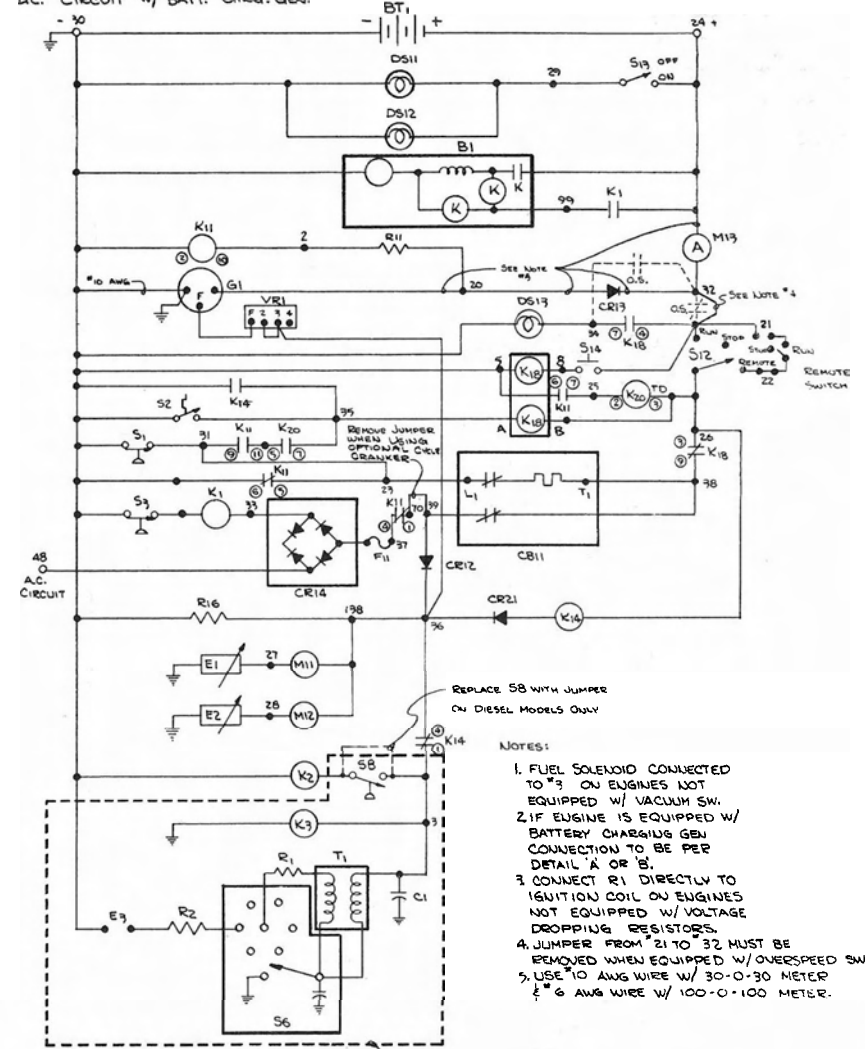
MODEL NO. PART NO. 1F-5216-2  
 CHK'D:

**WINPOWER CORPORATION**  
 NEWTON, IOWA 50208

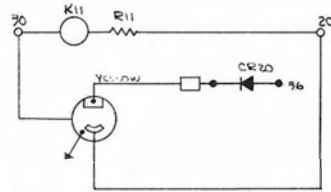
| ENGINE PARTS LIST |               |  |
|-------------------|---------------|--|
| REF.              | PART NO.      | DESCRIPTION  |
| B1                | SEE ENG. MAN. | START MOTOR W/ SOLENOID SWITCH                     |
| BT1               | VARIOUS       | BATTERY  |
| C1                | SEE ENG. MAN. | CAPACITOR (SPARK IGNITED ENGINES ONLY)             |
| E1                | OP-22         | SENDER - OIL PRESSURE                              |
| E2                | WT-22         | SENDER - WATER TEMP.                               |
| E3                | SEE ENG. MAN. | SPARK PLUG (SPARK IGNITED ENGINES)                 |
| G1                | SEE NOTE #2   | ALTERNATOR OR GENERATOR (BATT. CHARGE)             |
| K1                | EE-1201       | RELAY, STARTER MOTOR                               |
| K2                | SEE ENG. MAN. | SOLENOID - FUEL                                    |
| K3                | SEE ENG. MAN. | CHOKE (GASOLINE ONLY)                              |
| R1                | SEE ENG. MAN. | RESISTOR COIL (OPTIONAL - SPARK IGNITED ENG. ONLY) |
| R2                | SEE ENG. MAN. | RESISTORS - SPARK PLUGS                            |
| 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                | VARIOUS       | SWITCH - OVERSPEED (OPTIONAL)                      |
| S6                | SEE ENG. MAN. | DISTRIBUTOR ASSY. (SPARK IGNITED ENG. ONLY)        |
| S8                | SEE ENG. MAN. | SWITCH - VACUUM (GASEOUS FUELS ONLY)               |
| T1                | SEE ENG. MAN. | COIL IGNITION (SPARK IGNITED ENG. ONLY)            |
| VR1               | SEE ENG. MAN. | VOLTAGE REGULATOR - BATTERY CHARGING               |

| CONTROL CABINET PARTS LIST |                      |  |
|----------------------------|----------------------|--|
| REF.                       | PART NO.             | DESCRIPTION                                    |
| CB11                       | EE-1811              | CIRCUIT BREAKER - SAFETY SHUTDOWN              |
| CR12                       | G-5183-3             | RECTIFIER - BLOCKING                           |
| CR13                       | G-5819               | RECTIFIER - BLOCKING                           |
| CR14                       | EE-2171-4 OR EE-2169 | RECTIFIER - FIELD FLASHER                      |
| CR20                       | G-5819               | RECTIFIER - BLOCKING                           |
| CR21                       | EE-2167              | RECTIFIER - BLOCKING                           |
| DS11,12                    | EE-390               | LAMP - PANEL                                   |
| F11                        | EE-445-2             | FUSE - FIELD FLASHER                           |
| K11                        | EE-1220              | RELAY - CRANKING CONTROL                       |
| K18                        | EE-1233              | LATCHING RELAY                                 |
| K14                        | EE-1203              | RELAY  |
| K20                        | EE-1054              | TIME DELAY RELAY                               |
| M11                        | OP-21                | GAUGE - OIL PRESSURE                           |
| M12                        | WT-21                | GAUGE - WATER TEMPERATURE                      |
| M19                        | AM-12                | GAUGE - AMPHETER - CHARGE 30-0-30 OR 100-0-100 |
| R11                        | R-171                | RESISTOR - 33 OHM, 10 WATT                     |
| R16                        | R-157                | RESISTOR - 100 OHM, 0 WATT                     |
| R20                        | EE-181               | RESISTOR - 125 OHM, 10 WATT                    |
| S12                        | EE-151               | SWITCH - ENGINE - RUN, STOP, REMOTE            |
| S19                        | EE-151               | SWITCH - PANEL LAMP                            |
| S14                        | EE-233               | DE-ENERGIZATION SWITCH - SAFETY SHUTDOWN       |

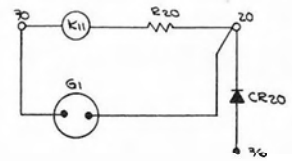
DC. CIRCUIT W/ BATT. CHRG. GEN.



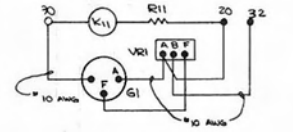
- NOTES:
1. FUEL SOLENOID CONNECTED TO \*3 ON ENGINES NOT EQUIPPED W/ VACUUM SW.
  2. IF ENGINE IS EQUIPPED W/ BATTERY CHARGING GEN CONNECTION TO BE PER DETAIL 'A' OR 'B'.
  3. CONNECT R1 DIRECTLY TO IGNITION COIL ON ENGINES NOT EQUIPPED W/ VOLTAGE DROPPING RESISTORS.
  4. JUMPER FROM 21 TO 32 MUST BE REMOVED WHEN EQUIPPED W/ OVERSPEED SW.
  5. USE 10 AWG WIRE W/ 30-0-30 METER & 6 AWG WIRE W/ 100-0-100 METER.



DETAIL 'A' ALTERNATOR-MOTOROLA NO. RA2N-4510 W/ REGULATOR NO. R3-1  
NOTE: ADD CR20 RECTIFIER



DETAIL 'C' - DELCO REMY #1102364  
NOTE - ADD RECTIFIER CR20 REMOVE R11 & REPLACE W/ R20



DETAIL 'B' - (GENERATOR - DELCO-REMY)  
NOTE: REMOVE CR13 & LEADS FROM 20 TO 21 NO CONNECTION FROM \*36 TO

USED ON GAS & GASEOUS FUEL MODELS ONLY.

| GRADE  | WAS ORIGINALLY | DATE | COE'S | CHR. REQUEST | NO. REQ'D | MICROFILM DATA |         |   |            |   |         |   |
|--|----------------|------|-------|--------------|-----------|----------------|---------|---|------------|---|---------|---|
| TOLERANCE ON DIMENSIONS NOT OTHERWISE SPECIFIED: <table style="display: inline-table; vertical-align: middle;"> <tr> <td>DECIMAL</td> <td>±</td> </tr> <tr> <td>FRACTIONAL</td> <td>±</td> </tr> <tr> <td>ANGULAR</td> <td>±</td> </tr> </table> |                |      |       |              |           |                | DECIMAL | ± | FRACTIONAL | ± | ANGULAR | ± |
| DECIMAL  | ±              |      |       |              |           |                |         |   |            |   |         |   |
| FRACTIONAL   | ±              |      |       |              |           |                |         |   |            |   |         |   |
| ANGULAR  | ±              |      |       |              |           |                |         |   |            |   |         |   |
| REMOVE ALL BURRS<br>BREAK ALL SHARP MACHINED EDGES<br><b>MATERIAL</b>  |                |      |       |              |           |                |         |   |            |   |         |   |

12 VOLT ENGINE Elec. CIRCUIT  
SCHEMATIC DIAGRAM

SCALE: NONE  
DATE: 10/5/76  
DWG: SWF  
WINPOWER CORPORATION  
NEWTON, IOWA 50208