

GENERAL:

This revision outlines changes that have occurred since the printing of your instruction manual. Use this information to correct your manual.

INSTRUCTION MANUAL AFFECTED:

68P81125E79-A	Battery Charger Power Supply 250W, 110/220 V, 50 Hz Model TPN1270B
68P81125E80-A	Battery Charger Power Supply 500W, 110/220 V, 50 Hz, Model TPN1269A
68P81125E81-O	Battery Charger Power Supply 575W, 110/220 V, 50 Hz, Model TPN1272A
68P81125E82-O	Battery Charger Power Supply 675W, 110/220 V, 60 Hz, Models TPN1271A (110 V) and TPN1273A (110/220 V)

REVISION DETAILS:

1. Power supply models TPN1185A, TPN1186A, TPN1191A, TPN1192A, TPN1200A, TPN1217A, TPN1218A, TPN1222A, TPN1226A, TPN1227A and TPN1263A are changed to "B" version models by replacing the TRN6137C, TRN6137D and TRN9007B Battery Charger Board with the TRN7241B Battery Charger Board and replacing the TRN6138B and TRN6138C Distribution Board with the TRN7242A Distribution Board. Power supply models TPN1185B, TPN1192B, TPN1218B, TPN1226B, TPN1227B, TPN1263B, TPN1269A, TPN1270A, TPN1270B, TPN1271A, TPN 1272A and TPN1273A are modified by replacing the TRN7241A, TRN7277A, and TRN7404A Battery Charger Boards with the "B" version Battery Charger Boards. Refer to the attached Model charts for Details.
2. The TRN7241B, TRN7277B and TRN7404B Boards are identical except for the inclusion of some fuses and different style connectors. Refer to the attached circuit board details, schematic diagram, and parts lists for details.

CIRCUIT DESCRIPTIONS

TRN7242A POWER SUPPLY DISTRIBUTION BOARD

The TRN7242A Power supply Distribution Board provides over-current and over-voltage protection for the power supply. Refer to the attached schematic diagram, circuit board detail and parts list for details. Secondary voltage fusing is provided by F601 and F602. Over-voltage protection is provided by a surge protection circuit consisting of Q601 through Q603 and U601. A surge in excess of 18.5 volts causes voltage at op-amp U601 pin 4 to exceed the reference voltage of 5-.1 V at U601 pin 5. The output voltage at U601 pin 2 drops to less than 1 volt causing Q601 to turn on using chassis mounted R651 as a pull-down load for the power supply output. Once the voltage at U601 pin 2 drops, U601 pin 1 goes to a high impedance. This changes the threshold voltage to 14.5 Volts. Any subsequent normal use of the station which

loads the power supply enough to pull the output voltage down below the 14.5 volt threshold (PA key, etc.) will then release R651.

TRN7241B, TRN7277B, TRN7404B BATTERY CHARGER CONTROL BOARD

The TRN7241B Battery Charger Control Board provides line and load regulation for the station power supply. Refer to the attached schematic diagram, circuit board detail and parts list for details.

Regulation is accomplished by controlling the saturation of ferroresonant transformer T601 by way of control inductor L650. This inductor is switched across the resonant winding of T601 as the output voltage reaches a preset level. Potentiometer R662 (VOLT ADJ) permits adjustment of the output voltage from 13.0 to 15.0 Volts. Switching and timing circuitry for the control inductor is discussed in the following paragraphs.

5 V and 11 V Reference Voltages. A 5 V reference voltage is generated by the power supply output voltage, R637, R641 and Zener diode VR600. The 5 V reference is used in the control voltage generator circuit, over-voltage protection circuits, and optional low voltage battery disconnect circuit. The 11 V reference voltage is also generated by the power supply output voltage, R647 and Zener diode VR601. The 11 V reference is used to power U601 and to provide a bias voltage for the ac filter, clock generator and ramp generator circuits.

Secondary AC Filter and Clock Generator. A clock signal at twice the line frequency is generated via the secondary ac signal. The signals are bandpass filtered by U601C and U601D, and the output is compared to a dc bias voltage. As each signal increases above the dc bias voltage, a pulse is generated at the output of U600C and U600D.

Ramp Generator. The clock circuit is used to generate a ramp signal by controlling transistor Q600. The ramp signal is generated by C607, R624 and the reference voltage from Zener diode VR601 in conjunction with Q600.

Control Voltage Generator. U601B compares the 5 V reference voltage with a representative power supply voltage generated by U601A. U601B then generates a control voltage with gain to the pulse width modulator.

Pulse Width Modulator. U600B compares the control voltage with the ramp signal and generates a pulse whose width is determined by how early in the ramp cycle the control voltage is equal to the ramp voltage.

Power Switch. SCR Q656 and TRIAC Q657 operate together to switch control inductor L650 in and out of the resonant winding of T601. The diode bridge between the TRIAC and SCR allows the TRIAC to be triggered every half cycle. The trigger point during each half cycle is determined by the pulse width modulator.

FLOAT/EQUALIZE Switch S650. The EQUALIZE position of S650 allows the battery charger output voltage to be increased by 1 volt for the initial charging and recharging of certain battery types. Refer to the specifications for the battery type being used to determine the charging requirements. The FLOAT position of S650 is used to maintain the battery charge at a constant level. When the temperature compensation option is used, the equalize voltage increment will be 0.5 V.

Over-voltage Protection. The battery charger board contains two over-voltage protection circuits. Resistors R642, R638, R623 and R615 determine the trigger points of each rail. The first rail is set to trigger at 15.5 V and is used to limit the output voltage to 15.5 V, independent of the temperature compensation voltage (optional, see paragraph 2.11), and output voltage potentiometer R662. Once this rail is triggered, it limits the voltage by turning on Q602. If the main regulator fails, the final rail will trigger at 17 V and shut down the power supply output voltage. The station will then revert to battery mode if the batteries are connected and charged. If the battery mode is not possible, the station will be inoperable. When U602B is triggered, it turns on SCR Q615, which turns on TRIAC Q606. Q606 then places control choke L650 across the ferroresonant winding of T601. **This action may blow the line fuse. This is normal operation. In stations containing two power supplies, the line fuse may not open but rather L650 will remain across the ferroresonant winding until C615 charges up to a voltage sufficient to trigger Q603 (from 15 to 25 seconds). This cycle repeats until the output voltage falls below 17 V. This rail also sends**

an over-voltage alarm to the station control module signaling a battery charger failure. A service technician should respond immediately.

AC Line Sense Fail. Transistors Q614 and Q616 generate an AC FAIL signal to the station control module when loss of the secondary ac signals is detected.

Temperature Compensation Option. When the temperature compensation option is ordered, a temperature sensing probe is installed near the emergency battery bank, and is connected to the battery charger board connector J604 via the station junction box. The probe generates a temperature-dependent voltage which is used by U601A to adjust the power supply output voltage. The amount of output voltage change is -39mV per + 1 degree Celsius of temperature change. When installing this option, the normal ambient temperature of the battery room must be determined in order to set the power supply output voltage.

Low Voltage Battery Disconnect Option. This option adds relay K600 to the battery charger board. When the battery bank output voltage drops below 10.25 V as measured by U602C, K600 opens and disconnects the emergency batteries from the power supply. In order for K600 to close and re-connect the batteries, the output voltage as measured by U602C, must increase to greater than 11.5 V.

ATTACHMENTS:

1. Power Supply Model Chart and Model Breakdown Chart.
2. TRN7242A Distribution Board Circuit Board Details, Schematic Diagram and Parts List
3. TRN7241B, TRN7277B, TRN7404B Battery Charger Circuit Board Details, Schematic Diagram, and Parts List
4. Other revised and applicable parts lists for the kits listed in the power supply model chart attachment.

POWER SUPPLY MODEL CHART

POWER SUPPLY MODEL

TPN118SB	TPN1186B	TPN1191B	TPN1192B	TPN1200B	TPN1217B	TPN1218B	TPN1222B	TPN1226B	TPN1227B	TPN1254B	TPN1263B	TPN1269A	TPN1270B	TPN1271A	TPN1272A	TPN1273A	Kit	Description
										•							TLN2994A	Fuse Box
																	TRN5155A	Battery Cable Extension, 10'
		•					•										TRN5335A	Hardware, Interconnect
			•					•	•								TRN5362A	Hardware, Interconnect, Battery Charger
							•	•									TRN5620A	Hardware, International, 500W, 50Hz
				•					•		•						TRN5621A	Hardware, International, 500W, 60Hz
					•	•											TRN5968A	Hardware, 250W
														•			TRN7098A	Hardware, 675W, 60Hz
													•				TRN7116A	Hardware, 250W, 50Hz
	•			•													TRN7117A	Miscellaneous Hardware
•	•	•	•														TRN 7213A	Hardware
															•		TRN7229A	Hardware, 575W, 50Hz
															•		TRN7237A	Hardware, 675W, 60Hz, 110/220V
•						•					•	•	•				TRN7241B	14V Battery Charger Board
	•			•	•												TRN7242A	14V Power Distribution Board
												•					TRN7274A	Hardware, 500W, 50Hz
•			•			•		•	•		•	•	•				TRN7275A	Hardware, Battery Charger, 65MH
														•	•	•	TRN7276A	Hardware, Battery Charger, 120MH
														•	•	•	TRN7277B	14/28V Battery Charger Board
													•				TRN7327A	Label and Hardware
												•					TRN7329A	Label and Hardware
															•		TRN7331A	Label and Hardware
														•	•	•	TRN7332A	Unique Hardware, 14/28V
•						•					•	•	•				TRN7333A	Unique Hardware, 14V
			•					•	•								TRN7404B	14V Battery Charger Board
		•					•										TRN7405A	14V Power Distribution Board
													•				TRN7601A	Battery Charger
					•												TRN7616A	Miscellaneous Hardware
										•							TRN9708A	Hardware and Mounting
•	•	•	•		•	•	•	•	•		•	•	•	•	•	•	TRN9752A	Hardware and Packing
										•							TRN9795A	Fuse and Label (BatteryCharger)
		•					•										TPN1189A	Auxiliary Chassis W/Regulator
			•					•	•								TPN1190A	Auxiliary Chassis W/Battery Charger Option
										•							TPN1218B	Basic Power Supply

CODE

• = ONE ITEM SUPPLIED

3/1/93

MODEL BREAKDOWN CHART

				TPN1189A	TPN1190A	CODE ● = ONE ITEM SUPPLIED	
						Kit	Description
				●	●	TRN5119B	Aux Regulator Board
					●	TRN5120A	Battery Revert Control Board
				●		TRN5297A	Hardware Kit
					●	TRN5298A	Hardware Kit
				●	●	TRN5299A	Chassis

NOTE

Parts lists for the kits listed in the model breakdown chart above start on page 50.

PARTS LIST

TRN5155A External Battery Cable		PL-8059-F
REF. SYMBOL	PART NO.	DESCRIPTION
		fuse:
F610	6582846N01	80A, 300V (2 used)
		connector:
J605	-	includes:
	1583502N01	HOUSING, battery connector (2 used)
	3983503N02	CONTACT, battery connector (2 used)
		non-referenced items:.
	0180752D67	CABLE ASSEMBLY, external battery
		includes: J605 and
	3000812505	CABLE, battery (red) (120" used)
	3000851875	CABLE, battery (black) (120" used)
	0300138490	SCREW, tapping: 8-18x1-1/4" (2 used)
	0982842N01	FUSE BLOCK
	2900847817	LUG, ring tongue: No. 3/8 mtg hole (2 used)
	4210217A02	STRAP, tie: .091x3.62" lg (3 used)
	5484697B01	LABEL

PARTS LIST

TRN5335A Hardware, Interconnect		PL-8015-F
REF. SYMBOL	PART NO.	DESCRIPTION
		connector:
P1, 603	1583498F45	CONNECTOR, housing; 9 position
		resistor, fixed:
R610	1782177B65	10 ohms, $\pm 10\%$; 50W
		non-referenced items:
	0180720E66	WIRE AND LUG
	0180755D70	CABLE, battery charger interconnect, includes:
	0180755D72	wire with lug, BLK
	0180755D73	wire with lug, BLKWHT
	0180755D74	wire with lug, RED
	0180755D75	wire with lug, REDWHT
	0180755D76	wire with lug, WHTRED
	0180755D77	wire with lug, BLU
	0180755D78	wire with lug, GRN
	0180784D33	CABLE, resistor
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (4 used)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red)
	2983113N01	CONNECTOR, receptacle: right-angle (blue) (3 used)
	2983499F01	CONTACT, receptacle (14 used)
	4210217A02	STRAP, tie: .091 x 3.62" lg (4 used)
	4382980N03	STANDOFF, printed circuit board (4 used)
	4684549F01	PLUG, POLARIZING (2 used)

PARTS LIST

TRN5362A Hardware, Interconnect, Battery Charger PL-13000-0

REF. SYMBOL	PART NO.	DESCRIPTION
		resistor:
R140	1783389G02	30 ohms, ±5%; 20W
		connector:
P1, P603	1583498F45	housing; 9 position (2 used)
		non-referenced items:
	0180755D70	CABLE, battery charger in- terconnect
		includes: P1, P603
	0180755D72	wire with lug, BLK
	0180755D73	wire with lug, BLKWHT
	0180755D74	wire with lug, RED
	0180755D75	wire with lug, REDWHT
	0180755D76	wire with lug, WHTRED
	0180755D77	wire with lug, BLU
	0180755D78	wire with lug, GRN
	0180755D79	wire with lug, ORN
	2983499F01	CONTACT, receptacle (14 used)
	2983883C02	LUG, crimp (red)
	4684549F01	PLUG, POLARIZING (2 used)
	0180757D98	RESISTOR ASSEMBLY
		includes: R140
	2982907N07	TERMINAL, ring tongue: No.10 mtg hole (red)
	2983499F01	CONTACT, receptacle (1 used)
	0310943M25	SCREW, tapping TT4 X 0.7 X 20 (2 used)
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (3 used)
	2983113N01	CONNECTOR, receptacle: right-angle (blue)

PARTS LIST

TRN5620A Hardware, International, 500W, 50 Hz. PL-13001-0

REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C601	0882682N05	30 uF, ±6%; 330V
C602,603	2382681N03	97000 uF, +75%/-10%; 20V
C604	2382681N02	120000 uF, +75%/-10%; 20V
		diode: (see note)
CR601,602	4882732C09	silicon
		fuse:
F600,601	6582847N27	6.3A, 250V (2 used)
		coil:
L601	2582686N02	filter, 700 UH
		connector:
P602	0983360N01	receptacle, 6-contact
		switch:
SW601	4084612B05	rocker, dpdt
		transformer:
T601	2584880N02	power
		terminal block:
TB601	3183576K02	2-contact
TB602	3100811350	4-contact
		non-referenced items:
	0180752D44	HEAT SINK
		includes: CR601,602, TB602
	0400007651	WASHER, lock: No.8 inter nal tooth (9 used)
	2682902N01	HEAT SINK
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (2 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (8 used)
	4282828T01	CLAMP, cable, dual
	0180777D41	CHOKE
		includes: L601, P602
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg (3 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (8 used)
	0210971A17	NUT, hex: M4 x 0.7 (4 used)
	0210971A19	NUT, hex: M6 x 1 (2 used)
	0310908A55	SCREW, machine: M6 x 1 x 25 (4 used)
	0310928B30	SCREW, locking: TT5 x 0.8 x 10 (2 used)
	0383497N01	SCREW, machine: M4 x 0.7 x 23 (4 used)
	0383497N02	SCREW, machine: M5 x 0.8 x 12 (6 used)
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (22 used)
	0383498N06	SCREW, tapping: M4 x 0.7 x 16 (3 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007658	WASHER, lock: No. 10 inter- nal tooth (6 used)
	0400119331	WASHER, lock: No. 1/4, me- dium split (2 used)
	0400135873	WASHER, flat: .281 x .750 x .060" (2 used)

PARTS LIST

TRN5620A Hardware, International, 500W, 50 Hz. PL-13001-0

REF. SYMBOL	PART NO.	DESCRIPTION
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (3 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	1483277N01	INSULATOR, lug (3 used)
	1484088N01	INSULATOR, capacitor terminal (2 used)
	1582659P01	COVER, switch (front)
	1582660P01	COVER, switch (rear)
	2783747T03	CHASSIS, power supply
	2982607B05	LUG, ring tongue: No. 10 mtg hole, .760" lg (2 used)
	2982907N06	TERMINAL, ring tongue: No. 10 mtg hole (blue)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (2 used)
	2983137N01	TERMINAL, parallel splice (2 used)
	2984709N01	TERMINAL, receptacle (blue)
	3000813233	CABLE, battery (red) (17.5 used)
	3000831572	CABLE, battery (black) (40.25 used)
	3083920N02	CABLE, battery (white) (12.5 used)
	3983146N01	CONTACT, receptacle
	4210217A02	STRAP, tie: .091 x 3.62" lg (17 used)
	4210217A33	STRAP, tie: .190 x 15" lg (4 used)
	4282903N01	CLAMP, capacitor: 2"
	4282903N03	CLAMP, capacitor: 3" (3 used)
	5482885P02	LABEL, rocker switch
	5483971N01	LABEL, high voltage
	5484046N01	LABEL: "CAUTION-HEAVY"
	7583056P01	PAD, snap-on (380MM lg)

NOTE: For optimum performance, diodes must be ordered by Motorola part number.

PARTS LIST

TRN5621A Hardware, International, 500W,60HZ PL-13002-O

REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C601	0882682N04	25 uF, ±8%; 330V
C602, 603	2382681N01	64000 uF, +75%/-7%; 20V
C604	2382681N02	120000 uF, +75%/-10%; 20V
		diode: (see note)
CR601,602	4882732C09	silicon
		fuse;
F600,601	6582847N27	6.3A, 250V (2 used)
		inductor:
L601	2582686N01	420 UH
		connector:
P602	0983360N01	receptacle: 6-contact
		switch:
SW601	4084612B05	rocker, dpdt
		includes:
	1582659P01	COVER, switch (front)
	1582660P01	COVER, switch (rear)
	5482885P02	LABEL, rocker switch
	5483971N01	LABEL, high voltage
	5484046N01	LABEL: "CAUTION-HEAVY"
		transformer:
T601	2582621P01	power
		terminal block:
TB601	3183576K02	2-contact
TB602	3100811350	4-contact
		non-referenced items:
	0180701F32	TERM BLOCK & WIRE
		includes:
	2982607B05	LUG, ring tongue: No. 10 mtg hole, .760" lg (5 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (5 used)
	0180752D44	HEAT SINK
		includes: CR601,602
	0400007651	WASHER, lock: No.8 inter nal tooth (9 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (5 used)
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (2 used)
	2983137N01	TERMINAL, parallel splice (2 used)
	4282828T01	CLAMP, cable, dual
	0180757D40	CONNECTOR
		includes: L601
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg (3 used)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (2 used)
	0210971A17	NUT, hex: M4 x 0.7 (4 used)
	0210971A19	NUT, hex: M6 x 1 (2 used)
	0310908A55	SCREW, machine: M6 x 1 x 25 (4 used)
	0310928B30	SCREW, locking: TT5 x 0.8 x 10 (2 used)
	0383497N01	SCREW, machine: M4 x 0.7 x 23 (4 used)

PARTS LIST

TRN5621A Hardware, International, 500W,60HZ		PL-13002-0
REF. SYMBOL	PART NO.	DESCRIPTION
	0383497N02	SCREW, machine: M5 x 0.8 x 12 (6 used)
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (22 used)
	0383498N06	SCREW, tapping: M4 x 0.7 x 16 (3 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007658	WASHER, lock: No. 10 internal tooth (6 used)
	0400119331	WASHER, lock: No. 1/4, medium split (2 used)
	0400135873	WASHER, flat: .281 x .750 x .060" (2 used)
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (3 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	1483277N01	INSULATOR, lug (3 used)
	1484088N01	INSULATOR, capacitor terminal (2 used)
	2682902N01	HEAT SINK
	2783747T03	CHASSIS, power supply
	2983501T01	LUG, male terminal (2 used)
	2984709N01	TERMINAL, receptacle (blue)
	3000813233	CABLE, battery (red) (17.5 used)
	3000831572	CABLE, battery (black) (40.25 used)
	3083920N02	CABLE, battery (white) (12.5 used)
	3983146N01	CONTACT, receptacle
	4210217A02	STRAP, tie: .091 x 3.62" lg (17 used)
	4210217A33	STRAP, tie: .190x15" lg (4 used)
	4282903N01	CLAMP, capacitor: 2"
	4282903N02	CLAMP, capacitor, 2.5" (2 used)
	4282903N03	CLAMP, capacitor: 3"
	7583056P01	PAD, snap-on (380MM lg)

NOTE: For optimum performance, diodes must be ordered by Motorola part number.

PARTS LIST

TRN5968A Hardware Kit, 250 W, Power Supply		PL-8665-A
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor:
C601	0882682N03	15 uF, ±6%; 330V
C602	2382681N03	97000 uF, +75%/-10%; 20V
C603	2382681N06	73500 uF, +75%/-10%; 20V
		diode:
CR601,602	4882732C09	silicon (2 used)
		fuse:
F601,602	6582847N27	6.3A, 250V (2 used) (TPN1217B)
F600,601	6582847N27	6.3A, 250V (2 used) (TPN1218B)
		choke:
L601	2582620P01	1.1 MH
		connector:
P602	0983360N01	receptacle: 6-contact
		switch:
S601	4084612B05	rocker, dpdt
		transformer:
T601	2583161P01	power
		non-referenced items:
	0180701F33	TERMINAL BLOCK & WIRE
		includes:
	2982607B05	LUG, ring tongue: No. 10 mtg hole, .760" lg (3 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)
	3000813233	CABLE, battery (red) (23 used)
	3000831572	CABLE, battery (black) (30 used)
	3183576K02	TERMINAL STRIP: 2-contact
	0180777D38	RECTIFIER
		includes:
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)
	0400007651	WASHER, lock: No.8 inter nal tooth
	2683005P01	HEAT SINK
	0180777D39	CHOKE
		includes: P602
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg (3 used)
	2983113N03	TERMINAL, socket: right angle (2 used)
	0210971A17	NUT, hex: M4 x 0.7 (3 used)
	0210971A18	NUT, hex: M5x0.8 (2 used)
	0210971A19	NUT, hex: M6 x 1 (2 used)
	0310908A55	SCREW, machine: M6 x 1 x 25 (4 used)
	0310943M29	SCREW, tapping: TT5 x 0.8 x 13 (2 used)
	0383497N01	SCREW, machine: M4 x 0.7 x 23 (3 used)
	0383497N02	SCREW, machine: M5 x 0.8 x 12 (4 used)
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (17 used)
	0383498N05	SCREW, tapping: M4 x 0.7 x 12 (2 used)

PARTS LIST

TRN5968A Hardware Kit, 250 W, Power Supply		PL-8665-A
REF. SYMBOL	PART NO.	DESCRIPTION
	0383498N06	SCREW, tapping: M4 x 0.7 x 16
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007658	WASHER, lock: No. 10 internal tooth (6 used)
	0400119331	WASHER, lock: No. 1/4, medium split (2 used)
	0400135873	WASHER, flat: .281 x .750 x .060" (2 used)
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (2 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	1483277N01	INSULATOR, lug (2 used)
	1484088N01	INSULATOR, capacitor terminal (2 used)
	1582659P01	COVER, switch (front)
	1582660P01	COVER, switch (rear)
	2783468T01	CHASSIS, power supply (5-3/4")
	2983137N01	TERMINAL, parallel splice (2 used)
	2983376H05	TERMINAL, receptacle (brass) (3 used)
	2984709N01	TERMINAL, receptacle (blue)
	3083920N02	CABLE, battery (white) (7 used)
	3983146N01	CONTACT, receptacle
	4210217A02	STRAP, tie: .091 x 3.62" lg (15 used)
	4210217A33	STRAP, tie: .190x15" lg (2 used)
	4282828T01	CLAMP, cable, dual
	4282903N01	CLAMP, capacitor: 2"
	4282903N03	CLAMP, capacitor: 3"
	4282903N04	CLAMP, capacitor, 1-3/4"
	5482885P02	LABEL, rocker switch (used with S602)
	5483971N01	LABEL, high voltage (used with S602)
	5484046N01	LABEL: "CAUTION-HEAVY" (used with S602)
	7583056P01	PAD, snap-on (380MM lg)

PARTS LIST

TRN7098A Hardware, 675 W; 60 Hz		PL-13009-O
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor:
C651	0882682N05	30 uF, $\pm 6\%$; 330V
C652,653	2382681N13	93000 uF, $+75\%$; $\pm 10\%$; 40V
C654,655	2382681N06	73500 uF, $+75\%$; $\pm 10\%$; 20V
		diode: (see note)
CR651,652	4882732C09	silicon
CR653,654	4882732C08	silicon
		fuse:
F652	6582847N27	6.3A, 250V (2 used)
		choke:
L651	2582686N01	420 UH
L652	2582620P01	1.1 MH
		connector:
P602	0983360N02	receptacle: 9-contact
		transformer:
T651	2583354T01	power, 675W; 60 HZ
		terminal block:
TB652	3100811350	4-contact
		non-referenced items:
	0180726E07	CONNECTOR, choke
		includes: L652, TB602
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (5 used)
	0180726E08	HEAT SINK, hot
		includes: CR653,654
	0383498N06	SCREW, tapping: M4 x 0.7 x 16 (6 used)
	0400007651	WASHER, lock: No.8 internal tooth (10 used)
	2683876T01	HEAT SINK, power supply
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (4 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)
	2983137N01	TERMINAL, parallel splice (4 used)
	4282828T01	CLAMP, cable, dual (3 used)
	0180752D44	HEAT SINK
		includes: CR601,602, TB652
	0400007651	WASHER, lock: No.8 internal tooth (10 used)
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (4 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)
	4282828T01	CLAMP, cable, dual (3 used)
	2682902N01	HEAT SINK
	0210971A17	NUT, hex: M4 x 0.7 (6 used)
	0210971A19	NUT, hex: M6 x 1 (2 used)
	0310908A55	SCREW, machine: M6 x 1 x 25 (4 used)
	0310928B30	SCREW, locking: TT5 x 0.8 x 10 (2 used)
	0383497N01	SCREW, machine: M4 x 0.7 x 23 (5 used)
	0383497N02	SCREW, machine: M5 x 0.8 x 12 (8 used)

PARTS LIST

TRN7098A Hardware, 875 W; 60 Hz PL-13009-0

REF. SYMBOL	PART NO.	DESCRIPTION
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (25 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007658	WASHER, lock: No. 10 internal tooth (10 used)
	0400119331	WASHER, lock: No. 1/4, medium split (2 used)
	0400135873	WASHER, flat: .281 x .750 x .060" (2 used)
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (4 used)
	0484071T01	WASHER, sholder (2 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	1483277N01	INSULATOR, lug (4 used)
	1483988T01	INSULATOR
	1484088N01	INSULATOR, capacitor terminal (2 used)
	2783747T03	CHASSIS, power supply
	2982607B05	LUG, ring tongue: No. 10 mtg hole, .780" lg (6 used)
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg
	2983501T01	LUG, male terminal (2 used)
	3000813233	CABLE, battery (red) (11 used)
	3000831572	CABLE, battery (black) (30 used)
	3010286A21	18STIVBK (32 used)
	3010286A23	WIRE, stranded: #18 RED (12 used)
	3010286B77	WIRE, stranded: #18 ORANGE (22 used)
	3010563P89	WR 16STR PVC GRNYEL (6 used)
	3083920N02	CABLE, battery (white) (26.5 used)
	3983146N01	CONTACT, receptacle
	4210217A02	STRAP, tie: .091 x 3.62" lg (8 used)
	4210217A33	STRAP, tie: .190x15" lg (2 used)
	4282903N01	CLAMP, capacitor: 2" (3 used)
	4282903N03	CLAMP, capacitor: 3" (2 used)
	5483971N01	LABEL, high voltage
	5484046N01	LABEL: "CAUTION-HEAVY"
	7583056P01	PAD, snap-on (380MM lg)

NOTE: For optimum performance, diodes must be ordered by Motorola part number.

PARTS LIST

TRN7116A Power Supply Hardware

PL-11301-D

REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed: uF -10+75%; 20V unless otherwise stated
C651	0882682N03	15 ±6%; 330V
C652	2382681N03	97,000
C657	2382681N06	73,500
		diode: (see note)
CR681,682	4882732C09	silicon
		fuse:
F651	6582847N25	3.15A, 250V (use with 220V AC)
	6582847N27	6.3A, 250V(used with 110V AC)
		connector:
J610	-	receptacle: 3-contact (p/o T651)
		coil:
L651	2582620P01	1.1MH
		connector:
P601	0983360N01	receptacle: 6-contact
		switch, rocker:
S651	4084612B05	dpdt
		transformer:
T651	2583071P03	power, includes J610 and TB652
		terminal board:
TB651	3183576K02	4-screw terminal
TB652	-	5-screw terminal (p/o T651)
		non-referenced items:
	0210971A17	NUT, hex: M4x0.7 (3 used)
	0210971A19	NUT, hex: M6x1 (2 used)
	0310908A55	SCREW, machine: M6x1x25 (4 used)
	0310928B30	SCREW, lock: TT5x0.8x10 (2 used)
	0383497N01	SCREW, machine: M4x0.7x23 (3 used)
	0383497N02	SCREW, machine: M5x0.8x12 (4 used)
	0383498N04	SCREW, tapping: M4x0.7x7 (17 used)
	0383498N05	SCREW, tapping: M4x0.7x12 (2 used)
	0383498N06	SCREW, tapping: M4x0.7x16
	0383678N02	SCREW, tapping: M4x0.7x18
	0400007651	WASHER, lock: No. 8 int tooth
	0400007658	WASHER, lock: No. 10 int tooth (6 used)
	0400119331	WASHER, lock: No. 1/4 med spt (2 used)
	0400135873	WASHER, flat: .281x.750x.080" (2 used)
	0483423R01	WASHER, flat: (rectangular) (2 used)
	0483499N01	WASHER, lug (2 used)
	0582904N01	GROMMET: M12.70 (4 used)
	0983641T01	FUSEHOLDER (with mtg hardware)
	0983641T02	CAP, fuseholder
	1483277N01	INSULATOR, lug (2 used)
	1484088N01	INSULATOR, capacitor, terminal (2 used)
	1582659P01	COVER, switch (front)
	1582660P01	COVER, switch (rear)
	2683005P01	HEAT SINK
	2783468T01	CHASSIS, power supply: 5-3/4"
	2982607B05	LUG, ring (.760" lg)(3 used)
	2982607B06	LUG, ring (.625" lg)(2 used)
	2982907N05	TERMINAL, ring (yellow) (4 used)
	2982907N06	TERMINAL, ring (blue)
	2983113N03	TERMINAL, right angle (red)(2 used)
	2983137N01	TERMINAL, parallel splice (2 used)
	2983376H05	TERMINAL, wire grip (3 used)
	2984709N01	TERMINAL, crimp (blue)
	3983145N02	CONTACT, plug
	4210217A02	STRAP, tie: .091x3.62" (15 used)
	4210217A33	STRAP, tie: .190x15"
	4282828T01	CLAMP, cable
	4282903N01	CLAMP, capacitor: 2"
	4282903N03	CLAMP, capacitor: 3"
	4282903N04	CLAMP, capacitor: 1-3/4"
	5483440T01	LABEL, power supply
	5483440T04	LABEL, fuse switch
	5483440T05	LABEL, switch 220V AC

PARTS LIST

TRN7116A Power Supply Hardware (cont.)

REF. SYMBOL	PART NO.	DESCRIPTION
		non-referenced items: (cont.)
	5483971N01	LABEL, high voltage
	7583056P01	PAD, snap-on (380.0mm lg)
	7583056P03	PAD, snap-on (140.0mm lg)

NOTE: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part number.

PARTS LIST

TRN7117A Miscellaneous Hardware

PL-11302-A

REF. SYMBOL	PART NO.	DESCRIPTION
R651	1782177B65	resistor, fixed: 10 $\pm$ 10%; 50W
		non-referenced items:
	0383498NO4	SCREW, tapping: M4x0.7x7
	2982907NO7	TERMINAL, ring (red)
	2983113NO3	TERMINAL, right angle (3 used)
	4382980NO3	STANDOFF, printed circuit bd (4 used)

PARTS LIST

TRN7213A Power Supply Hardware		PL-11807-B
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C601	0882682N01	20 uF, $\pm 6\%$; 330V
C602,603	2382681N01	64000 uF, $+75\%/-7\%$; 20V
C604	2382681N02	120000 uF, $+75\%/-10\%$; 20V
		diode: (see note)
CR601,602	4882732C09	silicon
		fuse:
F600,601	6582847N27	6.3A, 250V (2 used for F601 & F602)
		connector:
J610	- -	receptacle, 3-contact (included with transformer T601)
		coil:
L601	2582686N01	420 UH
		connector:
P602	0983360N01	receptacle: 6-contact
		transformer:
T601	2582253N01	power (includes connector J610)
		terminal strip:
TB601	3183576K02	2-contact
TB602	3100811350	4-contact
		non-referenced items:
	0210971A17	NUT, hex: M4x0.7 (4 used)
	0210971A19	NUT, hex: M6x1 (2 used)
	0310908A55	SCREW, machine: M6x1x25 (4 used)
	0310928B30	SCREW, locking: TT5x0.8x10 (2 used)
	0383497N01	SCREW, machine: M4x0.7x23 (4 used)
	0383497N02	SCREW, machine: M5x0.8x12 (6 used)
	0383498N04	SCREW, tapping: M4x0.7x7 (18 used)
	0383498N06	SCREW, tapping: M4x0.7x16 (3 used)
	0383498N14	SCREW, tapping: M4X0.7X18
	0400007651	WASHER, lock: No.8 internal tooth (9 used)
	0400007658	WASHER, lock: No. 10 internal tooth (13 used)
	0400119331	WASHER, lock: No. 1/4, medium split (2 used)
	0400135873	WASHER, flat: .281x.750x.060" (2 used)
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (3 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	1483277N01	INSULATOR, lug (3 used)
	1484088N01	INSULATOR, capacitor terminal (2 used)
	2682902N01	HEAT SINK
	2783747T03	CHASSIS, power supply
	2982607B05	LUG, ring tongue: No. 10 mtg hole, .760" lg
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg (3 used)

PARTS LIST

TRN7213A Power Supply Hardware		PL-11807-B
REF. SYMBOL	PART NO.	DESCRIPTION
	2982807B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (2 used)
non-referenced items: (cont.)		
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (9 used)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (2 used)
	2983137N01	TERMINAL, parallel splice (2 used)
	2983501T01	LUG, male terminal (2 used)
	3000813233	CABLE, battery (red) (17.5" used)
	3000831572	CABLE, battery (black) (40.25" used)
	3083920N02	CABLE, battery (white) (12.5" used)
	3983146N01	CONTACT, receptacle
	4210217A02	STRAP, tie: .091x3.62" lg (16 used)
	4210217A33	STRAP, tie: .190x15" lg (4 used)
	4282828T01	CLAMP, cable, dual
	4282903N01	CLAMP, capacitor: 2"
	4282903N02	CLAMP, capacitor, 2.5" (2 used)
	4282903N03	CLAMP, capacitor: 3"
	5483971N01	LABEL, high voltge
	5484046N01	LABEL: "CAUTION-HEAVY"
	5484497M87	LABEL: "ID"
	7583056P01	PAD, snap-on (380MM lg)

NOTE: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part number.

PARTS LIST

TRN7229A Hardware, 575W; 50HZ		PL-13010-O
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C651	0882682N05	30 uF, ±6%; 330V
C652,653	2382681N13	93000 uF, +75%/-10%; 40V
C654,655	2382681N06	73500 uF, +75%/-10%; 20V
		diode: (see note)
CR651,652	4882732C09	silicon
CR653,654	4882732C08	silicon
		fuse:
F652	6582847N26	5.0 A, 250V
	6582847N27	6.3A, 250V (2 used)
		coil:
L652	2582620P01	1.1 MH
L651	2582686N01	420 UH
		transformer:
T651	2584165T01	power, 575W; 50HZ; 110/220V
		terminal block:
TB652	3100811350	4-contact
		non-referenced items:
	0180726E07	CONNECTOR
		includes: L652
	0983360N02	receptacle: 9-contact
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (5 used)
	0180726E08	HEAT SINK, hot
		includes: CR653,654
	0383498N06	SCREW, tapping: M4 x 0.7 x 16 (6 used)
	0400007651	WASHER, lock: No.8 internal tooth (10 used)
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (4 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)
	2983137N01	TERMINAL, parallel splice (4 used)
	4282828T01	CLAMP, cable, dual (3 used)
	0180752D44	HEAT SINK
		includes: TB652
	0400007651	WASHER, lock: No.8 internal tooth (10 used)
	2682902N01	HEAT SINK
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (4 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)
	2983137N01	TERMINAL, parallel splice (4 used)
	4282828T01	CLAMP, cable, dual (3 used)
	0210971A17	NUT, hex: M4 x 0.7 (6 used)
	0210971A19	NUT, hex: M6 x 1 (2 used)
	0310908A55	SCREW, machine: M6 x 1 x 25 (4 used)
	0310928B30	SCREW, locking: TT5 x 0.8 x 10 (2 used)
	0383497N01	SCREW, machine: M4 x 0.7 x 23 (5 used)

PARTS LIST

TRN7229A Hardware, 575W; 50HZ		PL-13010-0
REF. SYMBOL	PART NO.	DESCRIPTION
	0383497N02	SCREW, machine: M5 x 0.8 x 12 (8 used)
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (29 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007658	WASHER, lock: No. 10 internal tooth (10 used)
	0400119331	WASHER, lock: No. 1/4, medium split (2 used)
	0400135873	WASHER, flat: .281 x .750 x .060" (2 used)
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (4 used)
	0484071T01	WASHER, sholder (2 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	0983641T01	FUSEHOLDER
	0983641T02	CAP, fuseholder
	1483277N01	INSULATOR, lug (4 used)
	1483988T01	INSULATOR
	1484088N01	INSULATOR, capacitor terminal (2 used)
	1582659P01	COVER, switch (front)
	1582660P01	COVER, switch (rear)
	2683876T01	HEATSINK, power supply
	2783747T03	CHASSIS, power supply
	2982607B05	LUG, ring tongue: No. 10 mtg hole, .780" lg (6 used)
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg
	2983501T01	LUG, male terminal (2 used)
	2984709N01	TERMINAL, receptacle (blue)
	3000813233	CABLE, battery (red) (11 used)
	3000831572	CABLE, battery (black) (30 used)
	3083920N02	CABLE, battery (white) (26.5 used)
	3883667N01	CAP, outlet connector
	3983145N02	CONTACT, plug: 22.60MM lg
	4084612B05	rocker, dpdt
	4210217A02	STRAP, tie: .091 x 3.62" lg (14 used)
	4210217A33	STRAP, tie: .190x15" lg (2 used)
	4282903N01	CLAMP, capacitor: 2" (3 used)
	4282903N03	CLAMP, capacitor: 3" (2 used)
	5483440T05	LABEL, 220VAC
	5483440T12	LABEL, power rating
	5483440T14	LABLE, "FUSE SWITCH"
	5483971N01	LABEL, high voltge
	7583056P01	PAD, snap-on (380MM lg)
	7583056P03	PAD, snap-on (140MM)

NOTE: For optimum performance, diodes must be ordered by Motorola part number.

PARTS LIST

TRN7237A Hardware, 675W; 60 HZ; 110/220VAC			PL-13006-O
REF. SYMBOL	PART NO.	DESCRIPTION	
		capacitor, fixed:	
C651	0882682N05	30 uF, ±6%; 330V	
C654,655	2382681N06	73500 uF, +75%/-10%; 20V	
C652,653	2382681N13	93000 uF, +75%/-10%; 40V	
		diode: (see note)	
CR651,652	4882732C09	silicon	
CR653,654	4882732C08	silicon	
		fuse:	
F652	6582847N27	6.3A, 250V (2 used)	
		resistor, fixed:	
L651	2582686N01	420 UH	
L652	2582620P01	1.1 MH	
		switch:	
S651	4084612B05	rocker, dpdt	
		transformer:	
T651	2584158T01	power; 675W 60HZ 110/220V	
		terminal block:	
TB652	3100811350	4-contact	
		non-referenced items:	
	0180726E07	CONNECTOR	
		includes: L652	
	0983380N02	receptacle: 9-contact	
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (5 used)	
	0180726E08	HEAT SINK, hot	
		includes: CR651,652	
	0383498N06	SCREW, tapping: M4 x 0.7 x 16 (6 used)	
	0400007651	WASHER, lock: No.8 internal tooth (10 used)	
	2683876T01	HEATSINK PS	
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg	
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)	
	2983137N01	TERMINAL, parallel splice (4 used)	
	4282828T01	CLAMP, cable, dual (3 used)	
	0180752D44	HEAT SINK	
		includes: CR651,652, TB652	
	0400007651	WASHER, lock: No.8 internal tooth (10 used)	
	2682902N01	HEAT SINK	
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (4 used)	
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (4 used)	
	2983137N01	TERMINAL, parallel splice (4 used)	
	4282828T01	CLAMP, cable, dual (3 used)	
	0210971A17	NUT, hex: M4 x 0.7 (6 used)	
	0210971A19	NUT, hex: M6 x 1 (2 used)	
	0310908A55	SCREW, machine: M6 x 1 x 25 (4 used)	
	0310928B30	SCREW, locking: TT5 x 0.8 x 10 (2 used)	

PARTS LIST

TRN7237A Hardware, 675W; 60 HZ; 110/220VAC		PL-13006-O
REF. SYMBOL	PART NO.	DESCRIPTION
	0383497N01	SCREW, machine: M4 x 0.7 x 23 (5 used)
	0383497N02	SCREW, machine: M5 x 0.8 x 12 (8 used)
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (29 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007658	WASHER, lock: No. 10 internal tooth (10 used)
	0400119331	WASHER, lock: No. 1/4, medium split (2 used)
	0400135873	WASHER, flat: .281 x .750 x .060" (2 used)
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (4 used)
	0484071T01	WASHER, sholder (2 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	1483277N01	INSULATOR, lug (4 used)
	1483988T01	INSULATOR
	1484088N01	INSULATOR, capacitor terminal (2 used)
	1582659P01	COVER, switch (front)
	1582660P01	COVER, switch (rear)
	2783747T03	CHASSIS, power supply
	2982807B05	LUG, ring tongue: No. 10 mtg hole, .760" lg (6 used)
	2983501T01	LUG, male terminal (2 used)
	2984709N01	TERMINAL, receptacle (blue)
	3000813233	CABLE, battery (red) (11 used)
	3000831572	CABLE, battery (black) (30 used)
	3083920N02	CABLE, battery (white) (26.5 used)
	3983146N01	CONTACT, receptacle
	4210217A02	STRAP, tie: .091 x 3.62" lg (14 used)
	4210217A33	STRAP, tie: .190x15" lg (2 used)
	4282903N01	CLAMP, capacitor: 2" (3 used)
	4282903N03	CLAMP, capacitor: 3" (2 used)
	5482885P02	LABEL, rocker switch
	5483971N01	LABEL, high voltge
	5484046N01	LABEL: "CAUTION-HEAVY"
	7583056P01	PAD, snap-on (380MM lg)

NOTE: For optimum performance, diodes must be ordered by Motorola part number.

PARTS LIST

TRN7241B 14V Battery Charger Board		PL-11996-O
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C800 thru 803	2113741B89	0.1 uF, $\pm 5\%$; 50 V
C804	0884687L31	0.047 uF, $\pm 10\%$; 250V
C806	2113741B89	0.1 uF, $\pm 5\%$; 50 V
C807	2311049A08	1 uF, $\pm 10\%$; 35V
C808	2113741B89	0.1 uF, $\pm 5\%$; 50 V
C809	2313748G09	10 uF, $\pm 20\%$; 35V
C810	2113741B89	0.1 uF, $\pm 5\%$; 50 V
C811	2113741B45	0.01 uF, $\pm 5\%$; 50V
C812	2313748G14	22 uF, $\pm 20\%$; 35V
C813	2113741B89	0.1 uF, $\pm 5\%$; 50 V
C814	2311049A08	1 uF, $\pm 10\%$; 35V
C815	2313748G21	100 uF, $\pm 20\%$; 16V
		diode: (see note)
CR800 thru 809	4813833C10	0.1A, 70V
CR810 thru 813	4813833B06	RECT 1A 600 V
CR814	4813833C10	0.1A, 70V
CR815	4813833B06	RECT 1A 600 V
		light emitting diode: (see note)
DS800	4884404E16	grn
		fuse:
F800, 801	0910548A04	FUSE BLOCK
		connector:
J800	2884324M09	plug: 4-contact
J801	2880006R02	plug: 2-contact
J802	2880004T06	plug: 8-contact
J803	2882984N14	plug: 9-contact
J804	2884324M08	plug: 3-contact
J805	2880004T02	plug: 2-contact
J806 thru 808	2910231A10	terminal, circuit board
		inductor:
L800	7685120U01	CORE, Ferrite bead, leaded
		transistor: (see note)
Q800	4813824A10	NPN
Q802 thru 805	4813824A10	NPN
Q806	4882965F02	thyristor
Q807	4800889568	NPN
Q813	4882233P14	PNP
Q814	4813824A10	NPN
Q815	4882604N01	silicon controlled rectifier
Q816, 817	4813824A10	NPN
Q818	4800889829	PNP
Q856	4882604N01	silicon controlled rectifier
Q857	4882965F02	thyristor
		resistor, fixed:
R800	0611072A59	2.7K $\pm 5\%$; 1/4W
R801	0611077A56	180 ohms, $\pm 5\%$; 1/8W
R802	0611077B09	27K, $\pm 5\%$; 1/8W
R803	0611072A59	2.7K $\pm 5\%$; 1/4W
R804	0611077A68	560 ohms, $\pm 5\%$; 1/8W
R805	0611077B23	100K, $\pm 5\%$; 1/8W
R806	0611077B09	27K, $\pm 5\%$; 1/8W
R807	0611072A59	2.7K $\pm 5\%$; 1/4W
R808	0611077A56	180 ohms, $\pm 5\%$; 1/8W
R809	0683962T73	1K, $\pm 5\%$; 1W
R810	0611077B09	27K, $\pm 5\%$; 1/8W

PARTS LIST

TRN7241B 14V Battery Charger Board		PL-11996-O
REF. SYMBOL	PART NO.	DESCRIPTION
R611	0611077A74	1K, $\pm 5\%$; 1/8 W
R612,613	0611077B09	27K, $\pm 5\%$; 1/8W
R614	0611077A90	4.7K, $\pm 5\%$; 1/8W
R615	0611077H06	150K, $\pm 1\%$; 1/8W
R616	0611077A98	10K, $\pm 5\%$; 1/8W
R617	0611077B09	27K, $\pm 5\%$; 1/8W
R618	0611077B23	100K, $\pm 5\%$; 1/8W
R619	0611077B03	15K, $\pm 5\%$; 1/8W
R620	0611077A90	4.7K, $\pm 5\%$; 1/8W
R621	0611077B09	27K, $\pm 5\%$; 1/8W
R622	0611077B43	680K, $\pm 5\%$; 1/8W
R623	0611077H42	357K, $\pm 1\%$; 1/8W
R624	0611077F79	7.5K, $\pm 1\%$; 1/8W
R625	0611077B17	56K, $\pm 5\%$; 1/8W
R626	0611077B09	27K, $\pm 5\%$; 1/8W
R627	0611077B27	150K, $\pm 5\%$; 1/8W
R628	0611077F63	5.11K, $\pm 1\%$; 1/8W
R629	0611077E73	604 ohms, $\pm 1\%$; 1/8W
R630	0611077A68	560 ohms, $\pm 5\%$; 1/8W
R631,632	0611077G11	15.8K, $\pm 1\%$; 1/8W
R633	0611077G14	16.9K, $\pm 1\%$; 1/8W
R634	0611077F91	10K, $\pm 1\%$; 1/8W
R635	0611077F71	6.19K, $\pm 1\%$; 1/8W
R636	0611077F91	10K, $\pm 1\%$; 1/8W
R637	0611040C91	10K, $\pm 0.5\%$; 1/4W
R638	0611077E73	604 ohms, $\pm 1\%$; 1/8W
R639,640	0611077F91	10K, $\pm 1\%$; 1/8W
R641	0611040C91	10K, $\pm 0.5\%$; 1/4W
R642	0611040B96	1.05K, $\pm 0.5\%$; 1/4W
R643	0611077A90	4.7K, $\pm 5\%$; 1/8W
R644	0611072A49	1K, $\pm 5\%$, 1/4W
R645	0611077A82	2.2K, $\pm 5\%$; 1/8 W
R646	0611077A90	4.7K, $\pm 5\%$; 1/8W
R647	0683962T56	200 ohms, $\pm 5\%$; 1W
R649	0611077A84	2.7K, $\pm 5\%$; 1/8 W
R650	0611072A49	1K, $\pm 5\%$, 1/4W
R651,652	0611077B27	150K, $\pm 5\%$; 1/8W
R653	0611077A90	4.7K, $\pm 5\%$; 1/8W
R654,655	0611077F71	6.19K, $\pm 1\%$; 1/8W
R656,657	0611077B16	51K, $\pm 5\%$; 1/8W
R658	0611077B09	27K, $\pm 5\%$; 1/8W
R660	0611077B03	15K, $\pm 5\%$; 1/8W
R662	1883452F02	variable: 2K $\pm 10\%$; 1/2W
		switch:
S650	4083204B02	slide: dpdt
		integrated circuit: (see note)
U600	5184621K74	Comparator
U601	5113819D04	General Purpose Differential Operational Amplifier
U602	5184621K74	Comparator
		voltage regulator: (see note)
VR600	5183222M81	Adjustable Precision Shunt Regulator
VR601	4882256C34	Zener 11V
		non-referenced items:
	2683472R01	HEAT SINK (used with Q606)
	2683472R01	HEAT SINK (used with Q657)

PARTS LIST

TRN7241B 14V Battery Charger Board		PL-11996-O
REF. SYMBOL	PART NO.	DESCRIPTION
	5483865R01	LABEL, bar code: 1/4" wide, white
	5484960T01	LABEL, bar code: 6.3 x 12.7MM, white

NOTE: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part number.

PARTS LIST

TRN7242A 14V Distribution Board		PL-11782-A
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C601	2311049A15	4.7 uF, $\pm 10\%$; 35V
C602, 603	2113740B32	20 pF, $\pm 5\%$; 50V
C604	2113740B49	100 pF, $\pm 5\%$; 50V
		diode: (see note)
CR601 thru 603	4811058A11	silicon
		light emitting diode: (see note)
DS601	4883636N03	green
		fuse:
F601, 602	6582847N27	6.3V, 250V (not part of TRN7242A)
		connector:
J602	2880004T08	plug: 6-contact
J603	2882984N14	plug: 9-contact
		contact:
P601	2910231A10	terminal, circuit board
		transistor: (see note)
Q601	4800869643	PNP
Q602	4800869568	NPN
Q603	4800869806	NPN
		resistor, fixed:
R601	0611040C51	3.83K, $\pm 0.5\%$; 1/4W
R602	0611040C41	3.01K, $\pm 0.5\%$; 1/4W
R603	0611040C15	1.62K, $\pm 0.5\%$; 1/4W
R604	0611086C55	680 ohms, $\pm 5\%$; 2W
R605	0611009A67	5.6K, $\pm 5\%$; 1/4W
R606	0611077A98	10K, $\pm 5\%$; 1/8W
R607	0611086A61	1.2K, $\pm 5\%$; 1W
R608	0611077A90	4.7K, $\pm 5\%$; 1/8W
R609	0611086A03	1 ohms, $\pm 5\%$; 1W
R610	0611077A80	270 ohms, $\pm 5\%$; 1/8W
R611 thru 613	1782036G03	2 ohms, $\pm 5\%$; 2W
R614	0611077A98	10K, $\pm 5\%$; 1/8W
R615	0611077B05	18K, $\pm 5\%$; 1/8W
R616	0611086A63	1.5K, $\pm 5\%$; 1W
R617	0611086A61	1.2K, $\pm 5\%$; 1W
R618	1782036G03	2 ohms, $\pm 5\%$; 2W
R619	0611077A01	0 ohm, $\pm 5\%$; 0W
		integrated circuit
U601	5184621K74	Comparator
		voltage regulator: (see note)
VR601	4883461E40	Zener 5.1V
		non-referenced items:
	0910548A04	FUSE BLOCK (2 used for F601 & F602)

NOTE: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part number.

PARTS LIST

TRN7274A Hardware, 500W; 50HZ		PL-13008-O
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C651	0882682N05	30 uF, ±6%; 330V
C652,653	2382681N03	97000 uF, +75%/-10%; 20V
C654	2382681N02	120000 uF, +75%/-10%; 20V
		diode: (see note)
CR651,652	4882732C09	silicon
		fuse:
F651	6582847N26	5.0 A, 250V
	6582847N27	6.3A, 250V (2 used)
		choke:
L651	2582686N02	filter; 700 UH
		connector:
P602	0983360N01	receptacle: 6-contact
		switch:
S651	4084612B05	rocker, dpdt
		transformer:
T651	2584329T01	power, 500W; 50HZ
		terminal block:
TB651	3183576K02	2-contact
TB652	3100811350	4-contact
		non-referenced items:
	0180701F32	TERMINAL BLOCK & WIRE
		includes: TB651
	2982607B05	LUG, ring tongue: No. 10 mtg hole, .760" lg (5 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (5 used)
	0180752D44	HEAT SINK
		includes: diodes CR601,602
	0400007651	WASHER, lock: No.8 inter nal tooth (9 used)
	2682902N01	HEAT SINK
	2982607B09	LUG, ring tongue: No. 8 mtg hole, .855" lg (2 used)
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 26.5MM lg (5 used)
	2983137N01	TERMINAL, parallel splice (2 used)
	4282828T01	CLAMP, cable, dual
	0180777D41	CHOKE, connector
		includes: L651, P602
	2982607B06	LUG, ring tongue: No. 10 mtg hole, .625" lg (3 used)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (2 used)
	0210971A17	NUT, hex: M4 x 0.7 (4 used)
	0210971A19	NUT, hex: M6 x 1 (2 used)
	0310908A55	SCREW, machine: M6 x 1 x 25 (4 used)
	0310928B30	SCREW, locking: TT5 x 0.8 x 10 (2 used)
	0383497N01	SCREW, machine: M4 x 0.7 x 23 (4 used)
	0383497N02	SCREW, machine: M5 x 0.8 x 12 (6 used)
	0383498N04	SCREW, tapping: M4 x 0.7 x 7 (22 used)

PARTS LIST

TRN7274A Hardware, 500W; 50HZ		PL-13008-0
REF. SYMBOL	PART NO.	DESCRIPTION
	0383498N06	SCREW, tapping: M4 x 0.7 x 16 (3 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007651	WASHER, lock: No.8 internal tooth (9 used)
	0400007658	WASHER, lock: No. 10 internal tooth (6 used)
	0400119331	WASHER, lock: No. 1/4, medium split (2 used)
	0400135873	WASHER, flat: .281 x .750 x .060" (2 used)
	0483423R01	WASHER, flat, rectangular (2 used)
	0483499N01	WASHER, lug, insulator (3 used)
	0582904N01	GROMMET: M12.70 mtg hole (4 used)
	0983641T01	FUSEHOLDER
	0983641T02	CAP, fuseholder
	1483277N01	INSULATOR, lug (3 used)
	1484088N01	INSULATOR, capacitor terminal (2 used)
	1582659P01	COVER, switch (front)
	1582660P01	COVER, switch (rear)
	2783747T03	CHASSIS, power supply
	2983501T01	LUG, male terminal (2 used)
	2984709N01	TERMINAL, receptacle (blue)
	3000813233	CABLE, battery (red) (17.5 used)
	3000831572	CABLE, battery (black) (40.25 used)
	3083920N02	CABLE, battery (white) (12.5 used)
	3883667N01	CAP, outlet connector
	3983145N02	CONTACT, plug: 22.60MM lg
	4210217A02	STRAP, tie: .091 x 3.62" lg (17 used)
	4210217A33	STRAP, tie: .190x15" lg (4 used)
	4282903N01	CLAMP, capacitor: 2"
	4282903N03	CLAMP, capacitor: 3" (3 used)
	5483440T05	LABEL, 220VAC
	5483440T12	LABEL PWR RATING
	5483440T14	LABLE FUSE SWITCH
	5483971N01	LABEL, high voltge
	5484046N01	LABEL: "CAUTION-HEAVY"
	7583056P01	PAD, snap-on (380MM lg)
	7583056P03	PAD, snap-on (140MM)

NOTE: For optimum performance, diodes must be ordered by Motorola part number.

PARTS LIST

TRN7275A/TRN7276A Battery Charger Hardware		PL-11675-C
REF. SYMBOL	PART NO.	DESCRIPTION
non-referenced items:		
	0210971A17	NUT, hex: M4x0.7
	0310928B30	SCREW, locking: TT5x0.8x10
	0383497N03	SCREW, machine: M5X0.8X25 (4 used)
	0383497N05	SCREW, machine: M4X0.7X10
	0383498N04	SCREW, tapping: M4x0.7x7 (4 used)
	0400007651	WASHER, lock: No.8 internal tooth (5 used)
	0582904N02	GROMMET: M9.58 shank dia. (4 used) (TRN7276A)
	0783006P02	BRACKET, battery charger board
	1483986N01	INSULATOR, circuit board
	1583901N01	COVER, battery charger board
	2582419N03	CHOKE: 120 MH (TRN7276A)
	2582419N05	CHOKE: 65 MH (TRN7275A)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red) (2 used)
	2983113N03	CONNECTOR, receptacle: right angle (2 used) (TRN7275A)
	4210217A02	STRAP, tie: .091x3.62" lg (8 used)
	4382980N01	STANDOFF, pc board (6 used)
	5483971N01	LABEL, high voltage

PARTS LIST

TRN7277B 14/28V Battery Charger Board		PL-11997-O
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C600 thru 603	2113741B69	0.1 uF, ±5%; 50 V
C604	0884637L31	0.047 uF, ±10%; 250V
C606	2113741B69	0.1 uF, ±5%; 50 V
C607	2311049A08	1 uF, ±10%; 35V
C608	2113741B69	0.1 uF, ±5%; 50 V
C609	2313748G09	10 uF, ±20%; 35V
C610	2113741B69	0.1 uF, ±5%; 50 V
C611	2113741B45	0.01 uF, ±5%; 50V
C612	2313748G14	22 uF, ±20%; 35V
C613	2113741B69	0.1 uF, ±5%; 50 V
C614	2311049A08	1 uF, ±10%; 35V
C615	2313748G21	100 uF, ±20%; 16V
		diode: (see note)
CR600 thru 609	4813833C10	0.1A, 70V
CR610 thru 613	4813833B06	RECT 1A 600 V
CR614	4813833C10	0.1A, 70V
CR615	4813833B06	RECT 1A 600 V
		light emitting diode: (see note)
DS800	4884404E16	grn
		fuse:
F600,601	0910548A04	FUSE BLOCK
		connector:
J600	2884324M09	plug: 4-contact
J601	2880006R02	plug: 2-contact
J602,603	2882984N14	plug: 9-contact
J604	2884324M08	plug: 3-contact
J605	2880004T02	plug: 2-contact
J606 thru 608	2910231A10	terminal, circuit board
		inductor:
L600	7685120U01	CORE, Ferrite bead, leaded
		transistor: (see note)
Q600	4813824A10	NPN
Q602 thru 605	4813824A10	NPN
Q606	4882965F02	thyristor
Q607	4800869568	NPN
Q613	4882233P14	PNP
Q614	4813824A10	NPN
Q615	4882604N01	silicon controlled rectifier
Q616,617	4813824A10	NPN
Q618	4800869829	PNP
Q656	4882604N01	silicon controlled rectifier
Q657	4882965F02	thyristor
		resistor, fixed:
R600	0611072A59	2.7K ±5%; 1/4W
R601	0611077A56	180 ohms, ±5%; 1/8W
R602	0611077B09	27K, ±5%; 1/8W
R603	0611072A59	2.7K ±5%; 1/4W
R604	0611077A68	560 ohms, ±5%; 1/8W
R605	0611077B23	100K, ±5%; 1/8W
R606	0611077B09	27K, ±5%; 1/8W
R607	0611072A59	2.7K ±5%; 1/4W
R608	0611077A56	180 ohms, ±5%; 1/8W
R609	0683962T73	1K, ±5%; 1W
R610	0611077B09	27K, ±5%; 1/8W
R611	0611077A74	1K, ±5%; 1/8 W

PARTS LIST

TRN7277B 14/28V Battery Charger Board		PL-11997-O
REF. SYMBOL	PART NO.	DESCRIPTION
R612,613	0611077B09	27K, $\pm 5\%$; 1/8W
R614	0611077A90	4.7K, $\pm 5\%$; 1/8W
R615	0611077H06	150K, $\pm 1\%$; 1/8W
R616	0611077A98	10K, $\pm 5\%$; 1/8W
R617	0611077B09	27K, $\pm 5\%$; 1/8W
R618	0611077B23	100K, $\pm 5\%$; 1/8W
R619	0611077B03	15K, $\pm 5\%$; 1/8W
R620	0611077A90	4.7K, $\pm 5\%$; 1/8W
R621	0611077B09	27K, $\pm 5\%$; 1/8W
R622	0611077B43	680K, $\pm 5\%$; 1/8W
R623	0611077H42	357K, $\pm 1\%$; 1/8W
R624	0611077F79	7.5K, $\pm 1\%$; 1/8W
R625	0611077B17	56K, $\pm 5\%$; 1/8W
R626	0611077B09	27K, $\pm 5\%$; 1/8W
R627	0611077B20	75K, $\pm 5\%$; 1/8W
R628	0611077F63	5.11K, $\pm 1\%$; 1/8W
R629	0611077E73	604 ohms, $\pm 1\%$; 1/8W
R630	0611077A68	560 ohms, $\pm 5\%$; 1/8W
R631,632	0611077G11	15.8K, $\pm 1\%$; 1/8W
R633	0611077G14	16.9K, $\pm 1\%$; 1/8W
R634	0611077F91	10K, $\pm 1\%$; 1/8W
R635	0611077F71	6.19K, $\pm 1\%$; 1/8W
R636	0611077F91	10K, $\pm 1\%$; 1/8W
R637	0611040C91	10K, $\pm 0.5\%$; 1/4W
R638	0611077E73	604 ohms, $\pm 1\%$; 1/8W
R639,640	0611077F91	10K, $\pm 1\%$; 1/8W
R641	0611040C91	10K, $\pm 0.5\%$; 1/4W
R642	0611040B96	1.05K, $\pm 0.5\%$; 1/4W
R643	0611077A90	4.7K, $\pm 5\%$; 1/8W
R644	0611072A49	1K, $\pm 5\%$, 1/4W
R645	0611077A82	2.2K, $\pm 5\%$; 1/8 W
R646	0611077A90	4.7K, $\pm 5\%$; 1/8W
R647	0683962T55	180 ohms, $\pm 5\%$; 1W
R649	0611077A84	2.7K, $\pm 5\%$; 1/8 W
R650	0611072A49	1K, $\pm 5\%$, 1/4W
R651,652	0611077B27	150K, $\pm 5\%$; 1/8W
R653	0611077A90	4.7K, $\pm 5\%$; 1/8W
R654,655	0611077F71	6.19K, $\pm 1\%$; 1/8W
R656,657	0611077B16	51K, $\pm 5\%$; 1/8W
R658	0611077B09	27K, $\pm 5\%$; 1/8W
R660	0611077B03	15K, $\pm 5\%$; 1/8W
R661	0611077A01	0 ohm, $\pm 5\%$; 0 W
R662	1883452F02	variable: 2K $\pm 10\%$; 1/2W
S650	4083204B02	switch: slide: dpdt integrated circuit: (see note)
U600	5184621K74	Comparator
U601	5113819D04	General Purpose Differential Operational Amplifier
U602	5184621K74	Comparator voltage regulator: (see note)
VR600	5183222M81	Adjustable Precision Shunt Regulator
VR601	4882256C34	Zener 11V
non-referenced items:		
	2683472R01	HEAT SINK (used with Q606)
	2683472R01	HEAT SINK (used with Q657)

PARTS LIST

TRN7277B 14/28V Battery Charger Board

PL-11997-0

REF. SYMBOL	PART NO.	DESCRIPTION
	5483885R01	LABEL, bar code: 1/4" wide, white
	5484960T01	LABEL, bar code: 8.3 x 12.7MM, white

NOTE: For optimum performance, diodes, transistors,
and integrated circuits must be ordered by Mo-
torola part number.

PARTS LIST

TRN7327A Label

PL-11674-A

REF. SYMBOL	PART NO.	DESCRIPTION
		non-referenced item:
	5483440T17	LABEL: TPN1270B

PARTS LIST

TRN7329A Label & Hardware

PL-13004-O

REF. SYMBOL	PART NO.	DESCRIPTION
non-referenced items:		
	5483440T16	LABEL, "TPN1269A"

PARTS LIST

TRN7331A Label & Hardware

PL-13005-O

REF. SYMBOL	PART NO.	DESCRIPTION
-------------	----------	-------------

non-referenced items:

5483440T18	LABEL, "TPN1272A"
------------	-------------------

PARTS LIST

TRN7332A Unique Hardware, 14/28V

PL-13007-0

REF. SYMBOL	PART NO.	DESCRIPTION
		resistor:
R650,651	1783389G02	30 ohms, ±5%; 20W
		non-referenced items:
	0180701F32	TERMINAL BLOCK & WIRE
		includes:
	2982807B05	LUG, ring tongue: No. 10 mtg hole, .780" lg
	2982907N05	TERMINAL, ring tongue: No. 10 mtg hole, 28.5MM lg (2 used)
	3183576K02	TERMINAL STRIP: 3-contact (2 used)
	0380036K01	SCREW, tapping; torque type (2 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400007651	WASHER, lock: No.8 internal tooth (2 used)
	2900859118	LUG, receptacle (4 used)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red)
	2983113N03	TERMINAL, socket: right angle
	3000813233	CABLE, battery (red) (13 used)
	3000831572	CABLE, battery (black) (13 used)
	3010288A23	WIRE, stranded: #18 RED (14.5 used)
	3083920N02	CABLE, battery (white) (9.5 used)
	3700135566	TUBING, 1/4 in, black (4 used)

PARTS LIST

TRN7333A Unique Hardware, 14V Battery Charger PL-11677-A

REF. SYMBOL	PART NO.	DESCRIPTION
		resistor, fixed:
R650	1783389G02	30 ohms, $\pm 5\%$; 20W
		non-referenced items:
	0383498N06	SCREW, tapping: M4x0.7x16 (2 used)
	2900859118	LUG, receptacle (2 used)
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red)
	2983113N03	CONNECTOR, receptacle: right angle

PARTS LIST

TRN7404B 14V Battery Charger Board		PL-11998-O
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C800 thru 803	2113741B69	0.1 uF, $\pm 5\%$; 50 V
C804	0884637L31	0.047 uF, $\pm 10\%$; 250V
C806	2113741B69	0.1 uF, $\pm 5\%$; 50 V
C807	2311049A08	1 uF, $\pm 10\%$; 35V
C808	2113741B69	0.1 uF, $\pm 5\%$; 50 V
C809	2313748G09	10 uF, $\pm 20\%$; 35V
C810	2113741B69	0.1 uF, $\pm 5\%$; 50 V
C811	2113741B45	0.01 uF, $\pm 5\%$; 50V
C812	2313748G14	22 uF, $\pm 20\%$; 35V
C813	2113741B69	0.1 uF, $\pm 5\%$; 50 V
C814	2311049A08	1 uF, $\pm 10\%$; 35V
C815	2313748G21	100 uF, $\pm 20\%$; 16V
		diode: (see note)
CR800 thru 809	4813833C10	0.1A, 70V
CR810 thru 813	4813833B06	RECT 1A 600 V
CR814	4813833C10	0.1A, 70V
CR815	4813833B06	RECT 1A 600 V
		light emitting diode: (see note)
DS800	4884404E16	grn
		fuse:
F800 thru 803	0910548A04	FUSE BLOCK
		connector:
J800	2884324M09	plug: 4-contact
J801	2880006R02	plug: 2-contact
J802	2880004T06	plug: 6-contact
J803	2882984N14	plug: 9-contact
J804	2884324M08	plug: 3-contact
J805	2880004T02	plug: 2-contact
J806 thru 808	2910231A10	terminal, circuit board
		inductor:
L800	7685120U01	CORE, Ferrite bead, leaded
		transistor: (see note)
Q800	4813824A10	NPN
Q802 thru 805	4813824A10	NPN
Q806	4882965F02	thyristor
Q807	4800869568	NPN
Q813	4882233P14	PNP
Q814	4813824A10	NPN
Q815	4882604N01	silicon controlled rectifier
Q816, 817	4813824A10	NPN
Q818	4800869829	PNP
Q856	4882604N01	silicon controlled rectifier
Q857	4882965F02	thyristor
		resistor, fixed:
R800	0611072A59	2.7K $\pm 5\%$; 1/4W
R801	0611077A56	180 ohms, $\pm 5\%$; 1/8W
R802	0611077B09	27K, $\pm 5\%$; 1/8W
R803	0611072A59	2.7K $\pm 5\%$; 1/4W
R804	0611077A68	560 ohms, $\pm 5\%$; 1/8W
R805	0611077B23	100K, $\pm 5\%$; 1/8W
R806	0611077B09	27K, $\pm 5\%$; 1/8W
R807	0611072A59	2.7K $\pm 5\%$; 1/4W
R808	0611077A56	180 ohms, $\pm 5\%$; 1/8W
R809	0683962T73	1K, $\pm 5\%$; 1W
R810	0611077B09	27K, $\pm 5\%$; 1/8W

PARTS LIST

TRN7404B 14V Battery Charger Board		PL-11998-O
REF. SYMBOL	PART NO.	DESCRIPTION
R611	0611077A74	1K, $\pm 5\%$; 1/8 W
R612,613	0611077B09	27K, $\pm 5\%$; 1/8W
R614	0611077A90	4.7K, $\pm 5\%$; 1/8W
R615	0611077H06	150K, $\pm 1\%$; 1/8W
R616	0611077A98	10K, $\pm 5\%$; 1/8W
R617	0611077B09	27K, $\pm 5\%$; 1/8W
R618	0611077B23	100K, $\pm 5\%$; 1/8W
R619	0611077B03	15K, $\pm 5\%$; 1/8W
R620	0611077A90	4.7K, $\pm 5\%$; 1/8W
R621	0611077B09	27K, $\pm 5\%$; 1/8W
R622	0611077B43	680K, $\pm 5\%$; 1/8W
R623	0611077H42	357K, $\pm 1\%$; 1/8W
R624	0611077F79	7.5K, $\pm 1\%$; 1/8W
R625	0611077B17	56K, $\pm 5\%$; 1/8W
R626	0611077B09	27K, $\pm 5\%$; 1/8W
R627	0611077B27	150K, $\pm 5\%$; 1/8W
R628	0611077F63	5.11K, $\pm 1\%$; 1/8W
R629	0611077E73	604 ohms, $\pm 1\%$; 1/8W
R630	0611077A68	560 ohms, $\pm 5\%$; 1/8W
R631,632	0611077G11	15.8K, $\pm 1\%$; 1/8W
R633	0611077G14	16.9K, $\pm 1\%$; 1/8W
R634	0611077F91	10K, $\pm 1\%$; 1/8W
R635	0611077F71	6.19K, $\pm 1\%$; 1/8W
R636	0611077F91	10K, $\pm 1\%$; 1/8W
R637	0611040C91	10K, $\pm 0.5\%$; 1/4W
R638	0611077E73	604 ohms, $\pm 1\%$; 1/8W
R639,640	0611077F91	10K, $\pm 1\%$; 1/8W
R641	0611040C91	10K, $\pm 0.5\%$; 1/4W
R642	0611040B96	1.05K, $\pm 0.5\%$; 1/4W
R643	0611077A90	4.7K, $\pm 5\%$; 1/8W
R644	0611072A49	1K, $\pm 5\%$, 1/4W
R645	0611077A82	2.2K, $\pm 5\%$; 1/8 W
R646	0611077A90	4.7K, $\pm 5\%$; 1/8W
R647	0683962T56	200 ohms, $\pm 5\%$; 1W
R649	0611077A84	2.7K, $\pm 5\%$; 1/8 W
R650	0611072A49	1K, $\pm 5\%$, 1/4W
R651,652	0611077B27	150K, $\pm 5\%$; 1/8W
R653	0611077A90	4.7K, $\pm 5\%$; 1/8W
R654,655	0611077F71	6.19K, $\pm 1\%$; 1/8W
R656,657	0611077B16	51K, $\pm 5\%$; 1/8W
R658	0611077B09	27K, $\pm 5\%$; 1/8W
R660	0611077B03	15K, $\pm 5\%$; 1/8W
R662	1883452F02	variable: 2K $\pm 10\%$; 1/2W switch:
S650	4083204B02	slide: dpdt integrated circuit: (see note)
U600	5184621K74	Comparator
U601	5113819D04	General Purpose Differential Operational Amplifier
U602	5184621K74	Comparator voltage regulator: (see note)
VR600	5183222M81	Adjustable Precision Shunt Regulator
VR601	4882256C34	Zener 11V
		non-referenced items:
		2683472R01 HEAT SINK (used with Q606)
		2683472R01 HEAT SINK (used with Q657)

PARTS LIST

TRN7404B 14V Battery Charger Board		PL-11998-0
REF. SYMBOL	PART NO.	DESCRIPTION
	5483865R01	LABEL, bar code: 1/4" wide, white
	5484960T01	LABEL, bar code: 6.3 x 12.7MM, white

NOTE: For optimum performance, diodes, transistors,
and
integrated circuits must be ordered by Motorola
part number.

PARTS LIST

TRN7405A 14V Distribution Borad

PL-11761-O

REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C601	2311049A15	4.7uF $\pm 10\%$; 35V
C602, 603	2113740B32	20pF $\pm 5\%$; 50V
C604	2113740B49	100pF $\pm 5\%$; 50V
CR601 thru 603	481105AB11	diode: (see note) silicon
DS601	4883636N03	light emitting diode: (see note) green
F601 thru 604	6582847N27	fuse: 6.3A, 250V
J601	2910231A10	connector: terminal, contact
J602	2882984N06	plug: 6-contact
J603	2882984N14	plug: 9-contact
Q601	4800869643	transistor: (see note) PNP
Q602	4800869568	NPN
Q603	4800869806	NPN
		resistor, fixed: $\pm 5\%$ unless otherwise stated
R601	0611040C51	3830 $\pm .5\%$; 1/4W
R602	0611040C41	3010 $\pm .5\%$; 1/4W
R603	0611040C15	1620 $\pm .5\%$; 1/4W
R604	0611086C55	680; 2W
R605	0611009A67	5600; 1/4W
R606	0611077A98	10K; 1/8W
R607	0611086A61	1200; 1W
R608	0611077A90	4700; 1/8W
R609	0611086A03	1; 1W
R610	0611077A60	270; 1/8W
R611 thru 613	1782036G03	2; 2W
R614	0611077A98	10K; 1/8W
R615	0611077B05	18K; 1/8W
R616	0611086A63	1500; 1W
R617	0611086A61	1200; 1W
R618	1782036G03	2; 2W
R619	0611077A01	0 ohm
U601	5184621K74	integrated circuit: (see note) Comparator
VR601	4883461E40	voltage regulator: (see note) Zener; 5.1V (see note)
	0910548A04	non-referenced item: FUSE BLOCK (4 used for F601 thru F604)

NOTE: For optimum performance diodes, transistors, and integrated circuits must be ordered by Motorola part number.

PARTS LIST

TRN7601A Battery Charger		PL-11820-A
REF. SYMBOL	PART NO.	DESCRIPTION
		diode: (see note)
CR1	4884946T01	type MDR6015
		resistor, fixed:
R1,2	1782177B65	10 ohms, $\pm 10\%$; 50W (2 used)
		non-referenced items:
	0180733E49	RESISTOR/DIODE ASSEMBLY (includes: CR1, & R1,2)
	0200115968	NUT, hex: 1/4-28 x 3/8 x 1/8"
	0383498N04	SCREW, tapping: M4 x 0.7 x 7
	0383498N06	SCREW, tapping: M4 x 0.7 x 16 (2 used)
	0383498N14	SCREW, tapping: M4 x 0.7 x 18
	0400119331	WASHER, lock: No. 1/4, medium split
	0484071T02	WASHER, sholder (2 used)
	0784928T01	BKACKET, resistor
	0983358N01	CONNECTOR, wire splice (2 used)
	1483988T02	INSULATOR
	2982607B02	LUG, ring tongue: .326" hole size
	2982607B10	LUG, ring tongue: .265" hole size
	2983113N01	CONNECTOR, receptacle: right-angle (blue) (2 used)
	3000813233	CABLE, battery (red) (17 used)
	3183576K02	TERMINAL STRIP: 2-contact

NOTE: For optimum performance, diodes, transistors, and intergrated circuits must be ordered by Motorola part number.

PARTS LIST

TRN7616A Miscellaneous Hardware Kit		PL-13014-0
REF. SYMBOL	PART NO.	DESCRIPTION
		resistor, fixed:
R610	1782177B65	10 ohms, $\pm 10\%$; 50W
		non-referenced items:
	0383498N04	SCREW, tapping: M4 x 0.7 x 7
	2982907N07	TERMINAL, ring tongue: No. 10 mtg hole (red)
	2983113N03	TERMINAL, socket: right angle (3 used)
	4382980N03	STANDOFF, printed circuit board (4 used)

PARTS LIST

TRN9708A Hardware, power supply mounting		PL-13015-O
REF. SYMBOL	PART NO.	DESCRIPTION
non-referenced items:		
	0284410P05	NUT, speed: 1/4-14 (8 used)
	0300135499	SCREW, tapping: 1/4-14 X 5/8 (8 used)
	0383498N08	SCREW, tapping: M6 x 1.0 x 10 (2 used)
	0383677N01	SCREW, cap M6 X 1.0 X 20 (2 used)
	0782275R01	BRACKET, power supply mounting; LH
	0782275R02	BRACKET, power supply mounting; RH
	1582733R02	COVER, power supply

PARTS LIST

TRN9752A Support Bracket Hardware		PL-10640-A
REF. SYMBOL	PART NO.	DESCRIPTION
non-referenced items:		
	0383498N04	SCREW, tapping: M4x0.7x7 (4 used)
	0784794P01	BRACKET, support (2 used)

PARTS LIST

TRN9795A Fuse and Label Kit		PL-13016-O
REF. SYMBOL	PART NO.	DESCRIPTION
non-referenced items:		
	0383498N05	SCREW, tapping: M4 x 0.7 x 12 (2 used)
	3882892N01	CAP, fuseholder (black)
	3882892N02	CAP, fuseholder (gray)
	4210217A10	STRAP, tie: 0.184 x 7.78" lg (2 used)
	4282666R01	CLIP, fuseholder
	5482519R02	LABEL, battery warning
	5482928P06	LABEL, ac power
	5484697B01	LABEL (0.731 x 3")
	6500015270	FUSE, 6A, 250V
	6582847N04	FUSE, 3.15A, 250V

PARTS LIST

TRN5119B Auxiliary Regulator Board		PL-10782-A
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C1	2382394A19	3600 uF, +150%;-10%; 40V
C2,3	2111015D13	1000 pF, ±10%; 100V
C4	2384665F15	330 uF, +50%;-10%; 25V
C5 thru 8	2111015D13	1000 pF, ±10%; 100V
C9	2384665F15	330 uF, +50%;-10%; 25V
C10	2111015D13	1000 pF, ±10%; 100V
C11,12	2182428B21	0.01 uF, +10%;-30%; 100V
C13,14	2384538G02	4.7 uF, ±20%; 20V
C15,16	2111015D13	1000 pF, ±10%; 100V
C17	2111022G39	24 pF, ±5%; 50V
C18,19	2111015D13	1000 pF, ±10%; 100V
C20	2111022G39	24 pF, ±5%; 50V
C21,22	2111015D13	1000 pF, ±10%; 100V
C24 thru 26	2111015D13	1000 pF, ±10%; 100V
C27,28	2182187B22	270 pF, ±10%; 200V
C29	2313748G25	333 uF, ±20%; 35V
		diode: (see note)
CR1	4882525G13	silicon, 100V
CR2 thru 12	4883654H01	silicon
CR13,14	4882392B18	silicon, 50V
CR15	4882525G13	silicon, 100V
CR17 thru 21	4883654H01	silicon
		connector:
J1	2882984N12	PLUG, 8-pin
J2	0983497F08	RECEPTICAL, 5 contact
J3,4	2880004T03	plug: 3-contact
J5	0180754D88	CONNECTOR
		includes:
	3982977N01	contact, receptacle (8 used)
	1584953L01	housing, receptacle: 8-contact
J6	2880004T02	plug: 2-contact
J7	2880004T03	plug: 3-contact
		jumper:
JU2	0611009F23	0 ohms, ±5%; 1/4W
		inductor:
L1	2483961B01	CHOKE, RF
		transistor: (see note)
Q2	4800869833	NPN
Q3	4800869643	PNP
Q4,5	4813824D08	NPN
Q7	4800869833	NPN
Q8	4800869643	PNP
Q9,10	4813824D08	NPN
Q12	4882022N50	Power N-Channel
		resistor, fixed:
R1	0611009A49	1K, ±5%; 1/4W
R2	1782177B16	100 ohms, ±10%; 5W
R3	0611009E57	2.2K, ±5%; 1/4W
R4	0611009E03	12 ohms, ±5%; 1/4W
R5	0611009E99	120K, ±5%; 1/4W
R6	0611009E59	2.7K, ±5%; 1/4W
R7	1884944C10	variable; 1000 ohms, ±20% 0.10W
R8	0611009E58	2.4K, ±5%; 1/4W
R9	0611009E69	6.8K, ±5%; 1/4W
R10	1782036G24	0.13 ohms, ±5%; 0W

PARTS LIST

TRN5119B Auxiliary Regulator Board		PL-10782-A
REF. SYMBOL	PART NO.	DESCRIPTION
R11	0611049H48	332 ohms, $\pm 1\%$; 1/4W
R12	0611009E25	100 ohms, $\pm 5\%$; 1/4W
R13	0611009E73	10K, $\pm 5\%$; 1/4W
R14	0611009E57	2.2K, $\pm 5\%$; 1/4W
R15	0611049J81	7.87K, $\pm 1\%$; 1/4W
R17	0611049J79	7.5K, $\pm 1\%$; 1/4W
R18	0611009E61	3.3K, $\pm 5\%$; 1/4W
R19	0611009E73	10K, $\pm 5\%$; 1/4W
R20	1782036G24	0.13 ohms, $\pm 5\%$; 0W
R21	0611049H48	332 ohms, $\pm 1\%$; 1/4W
R22	0611009E25	100 ohms, $\pm 5\%$; 1/4W
R23, 24	0611009E73	10K, $\pm 5\%$; 1/4W
R25	0611009E57	2.2K, $\pm 5\%$; 1/4W
R26	0611049J81	7.87K, $\pm 1\%$; 1/4W
R27	0611049J79	7.5K, $\pm 1\%$; 1/4W
R28	0611009E69	6.8K, $\pm 5\%$; 1/4W
R29	0611009E99	120K, $\pm 5\%$; 1/4W
R30	0611009E57	2.2K, $\pm 5\%$; 1/4W
R31	0611009E61	3.3K, $\pm 5\%$; 1/4W
R32	1782177B16	100 ohms, $\pm 10\%$; 5W
R33	0611009A33	220 ohms, $\pm 5\%$; 1/4W
R34	0611009E53	1.5K, $\pm 5\%$; 1/4W
R35	1884944C10	variable; 1000 ohms, ± 20 0.10W
R36	0611009E63	3.9K, $\pm 5\%$; 1/4W
R37, 38	0611009E89	47K, $\pm 5\%$; 1/4W
R39	0611009E53	1.5K, $\pm 5\%$; 1/4W
R40	0611009E39	390 ohms, $\pm 5\%$; 1/4W
R41	0611049J27	2.15K, $\pm 1\%$; 1/4W
R42	0611049K05	13.7K, $\pm 1\%$; 1/4W
R43	0611009E73	10K, $\pm 5\%$; 1/4W
R44	0611009A73	10K, $\pm 5\%$; 1/4W
R45, 46	1782177B64	2.8 ohms, $\pm 5\%$; 10W
R47, 48	1782177B12	0.7 ohms, $\pm 10\%$; 5W
R49	0611009E97	100K, $\pm 5\%$; 1/4W
R50	0611009F22	1 meg, $\pm 5\%$; 1/4W
R51	0611009E97	100K, $\pm 5\%$; 1/4W
R52	0611009E83	27K, $\pm 5\%$; 1/4W
R53	0611009E35	270 ohms, $\pm 5\%$; 1/4W
R54	0611009E37	330 ohms, $\pm 5\%$; 1/4W
R55	0611045A43	560 ohms, $\pm 5\%$; 1/2W
R56	0611009E97	100K, $\pm 5\%$; 1/4W
		integrated circuit: (see note)
U1	5184320A80	Quad Operational Amplifier
U2	5184621K85	Dual Operational Amplifier
		voltage regulator: (see note)
VR1	4882258C61	Zener 5.8V
VR2	4813831D31	18V, $\pm 5\%$; 14MA; 1W;
VR3	4813830D27	14V, $\pm 5\%$; 9.0MA; 500MW
VR4	4813830D23	10V, $\pm 5\%$; 20MA; 500MW
VR5	4813831D42	39V, $\pm 5\%$; 6.5MA; 1W
VR6	4813831D31	18V, $\pm 5\%$; 14MA; 1W;
		non-referenced items:
	2683472R01	HEAT SINK

NOTE: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part number.

PARTS LIST

TRN5120A Battery Revert Control Board		PL-7946-B
REF. SYMBOL	PART NO.	DESCRIPTION
		capacitor, fixed:
C101	2111015B05	220 pF, $\pm 10\%$; 100V
C102	2313748G08	10 uF, $\pm 20\%$; 16V
C103	2311013C07	10 uF, $\pm 10\%$; 15V
C104 thru 106	0811017A05	3300 pF, $\pm 5\%$; 50V
C107	0811051A13	0.1 uF, $\pm 5\%$; 63V
C108 thru 110	2111015B05	220 pF, $\pm 10\%$; 100V
C111	2313748G13	22 uF, $\pm 20\%$; 25V
		diode: (see note)
CR101 thru 104	4883654H01	silicon
CR105,106	4882466H18	silicon
CR107 thru 112	4883654H01	silicon
		connector:
J101	2880004T02	plug: 2-contact
J103	2880004T03	plug: 3-contact
		jumper:
JU101,102	0611009B23	0 ohm, $\pm 5\%$; 1/4W
		relay:
K100	8084134D01	13.5VDC, 2A
		inductor:
L101 thru 104	2483961B02	CHOKES, RF
		connector:
P2	2883274N02	PLUG CKT BD 5 PIN
		transistor: (see note)
Q101 thru 103	4813824D06	NPN
Q104	4800869648	NPN
Q105	4813824D06	NPN
		resistor, fixed:
R101	0611009A73	10K, $\pm 5\%$; 1/4W
R102	0611009A89	47K, $\pm 5\%$; 1/4W
R103	0611009A56	2K, $\pm 5\%$; 1/4W
R104	0611009A81	22K, $\pm 5\%$; 1/4W
R105	0611009A89	47K, $\pm 5\%$; 1/4W
R106	0611009A73	10K, $\pm 5\%$; 1/4W
R107	0611009A89	47K, $\pm 5\%$; 1/4W
R108	0611009A73	10K, $\pm 5\%$; 1/4W
R109	0611009A55	1.8K, $\pm 5\%$; 1/4W
R110	0611009A89	47K, $\pm 5\%$; 1/4W
R111	0611009A97	100K, $\pm 5\%$; 1/4W
R112	0611049L61	562K, $\pm 1\%$; 1/4W
R113	0611009B22	1 meg, $\pm 5\%$; 1/4W
R114	0611009A65	4.7K, $\pm 5\%$; 1/4W
R115,116	0611009A89	47K, $\pm 5\%$; 1/4W
R117	0611009A83	27K, $\pm 5\%$; 1/4W
R118	0611009B09	300K, $\pm 5\%$; 1/4W
R119 thru 121	0611009B22	1 meg, $\pm 5\%$; 1/4W
R122 thru 124	0611009A75	12K, $\pm 5\%$; 1/4W
R125	0611009A73	10K, $\pm 5\%$; 1/4W
R126	0611009A49	1K, $\pm 5\%$; 1/4W
R127	0611009B14	470K, $\pm 5\%$; 1/4W
R128,129	1883083G31	variable, 250K; $\pm 20\%$, 1/4W
R130	0611009B19	750K, $\pm 5\%$; 1/4W
R131	0600126A29	150 ohms, $\pm 5\%$; 1W
R132	0611009B22	1 meg, $\pm 5\%$; 1/4W
R133	0611009B14	470K, $\pm 5\%$; 1/4W
R134	0611009B22	1 meg, $\pm 5\%$; 1/4W
R135	0611009A97	100K, $\pm 5\%$; 1/4W

PARTS LIST

TRN5120A Battery Revert Control Board		PL-7946-B
REF. SYMBOL	PART NO.	DESCRIPTION
R136	0611009A73	10K, $\pm 5\%$; 1/4W
R137	0611009A97	100K, $\pm 5\%$; 1/4W
R138	0611009B05	200K, $\pm 5\%$; 1/4W
R139	0611009A97	100K, $\pm 5\%$; 1/4W
		voltage regulator: (see note)
VR101	4883461E42	ZENER, 6.8V
		non-referenced items:
	4384920H01	Spacer, relay (used with K100)
	5113819D01	NORTON INPUT 14 DIP LM2900N

NOTE: For optimum performance, diodes and transistors must be ordered by Motorola part number.

PARTS LIST

TRN5297A Hardware Kit

TRN5298A Hardware Kit

PL-13003-O

REF. SYMBOL	PART NO.	DESCRIPTION
		connector:
P6, P101	1583498F38	housing; 2 position (2 used)
		non-referenced items:
	0180754D99	CABLE, battery reverting includes: P6, P101
	0180754D97	wire with lug, RED
	0180754D98	wire with lug, WHT
	4210217A02	STRAP, tie:.091 x 3.62" lg
	0300135506	SCREW, locking; 6-32X1/4
	0180754d86	wire with lug, WHT
	0180754d87	JUMPER, includes:P6, P101
	2983499F01	CONTACT, receptacle (4 used) (2used on TRN5297A)
	4382980N01	STANDOFF, pc board (7used) (2used on TRN5297A)
	4383561N01	STANDOFF, twist lock (2 used)

PARTS LIST

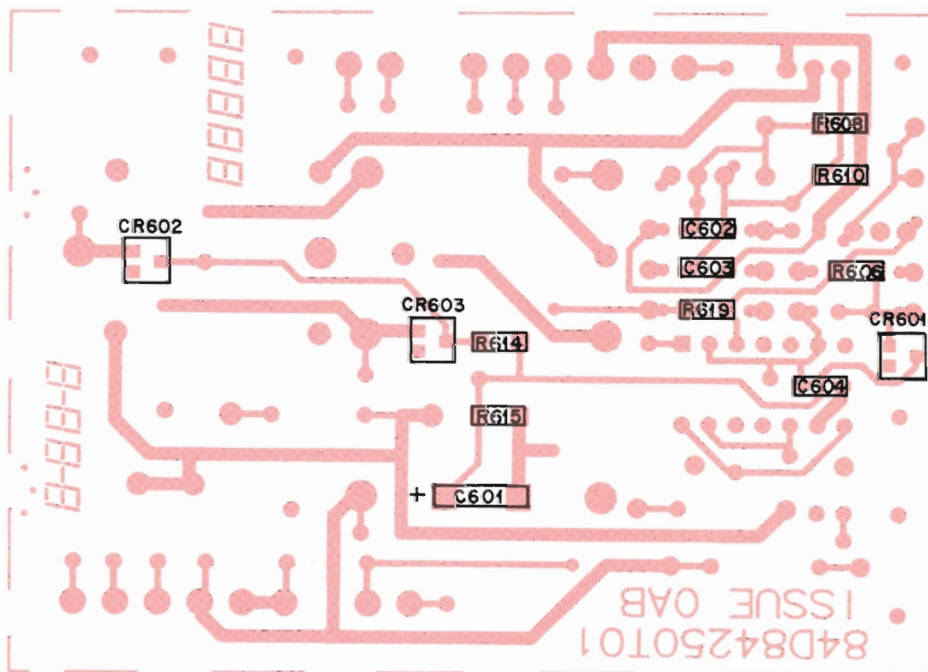
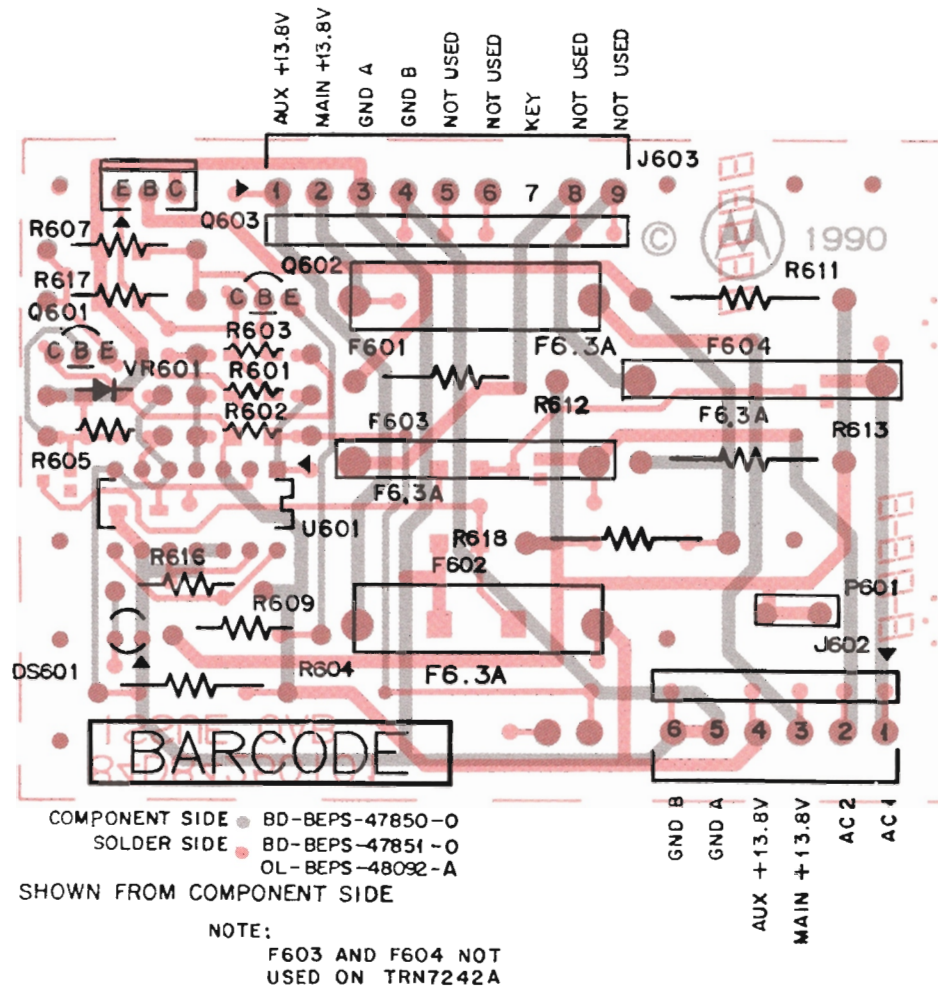
TRN5299A CHASSIS		PL-8013-A
REF. SYMBOL	PART NO.	DESCRIPTION
		fuse:
F602, 603	6582847N27	6.3A, 250V
		connector:
P3	1583498F39	housing, 3-position
P4	1583498F40	housing, 3-position
P7	1583498F39	housing, 3-position
		transistor: (see note)
Q1,6,11	4800869672	PNP
		non-referenced items:
	0180754D73	heat sink & transistor: (3 used) consists of: Q1,6,11
	2682979N01	HEAT SINK
	0180754D77	CABLE A, transistor Q11 interconnect: consists of: P7
	0180754D74	wire & lug, BRN
	0180754D75	wire & lug, RED
	0180754D76	wire & lug, ORN
	0180754D81	CABLE B, transistor Q6 interconnect: consists of: P4
	0180754D78	wire & lug, YEL
	0180754D79	wire & lug, GRN
	0180754D80	wire & lug, BLU
	0180754D85	CABLE C, transistor Q1 interconnect: consists of: P3
	0180754D82	wire & lug, VIO
	0180754D83	wire & lug, WHT
	0180754D84	wire & lug, GRA
	0300136143	SCREW, tapping; 8-32X1/4 (6 used)
	0300136850	SCREW, lock; 6-32X1/2 (2 used)
	0982673A01	RECEPTACLE, 2-contact
	1400865854	INSULATOR
	2782978N01	CHASSIS, auxillary AUX
	2983499F01	CONTACT, receptacle (9 used)

NOTE: For optimum performance, transistors must be ordered by Motorola part number.

POWER DISTRIBUTION BOARD

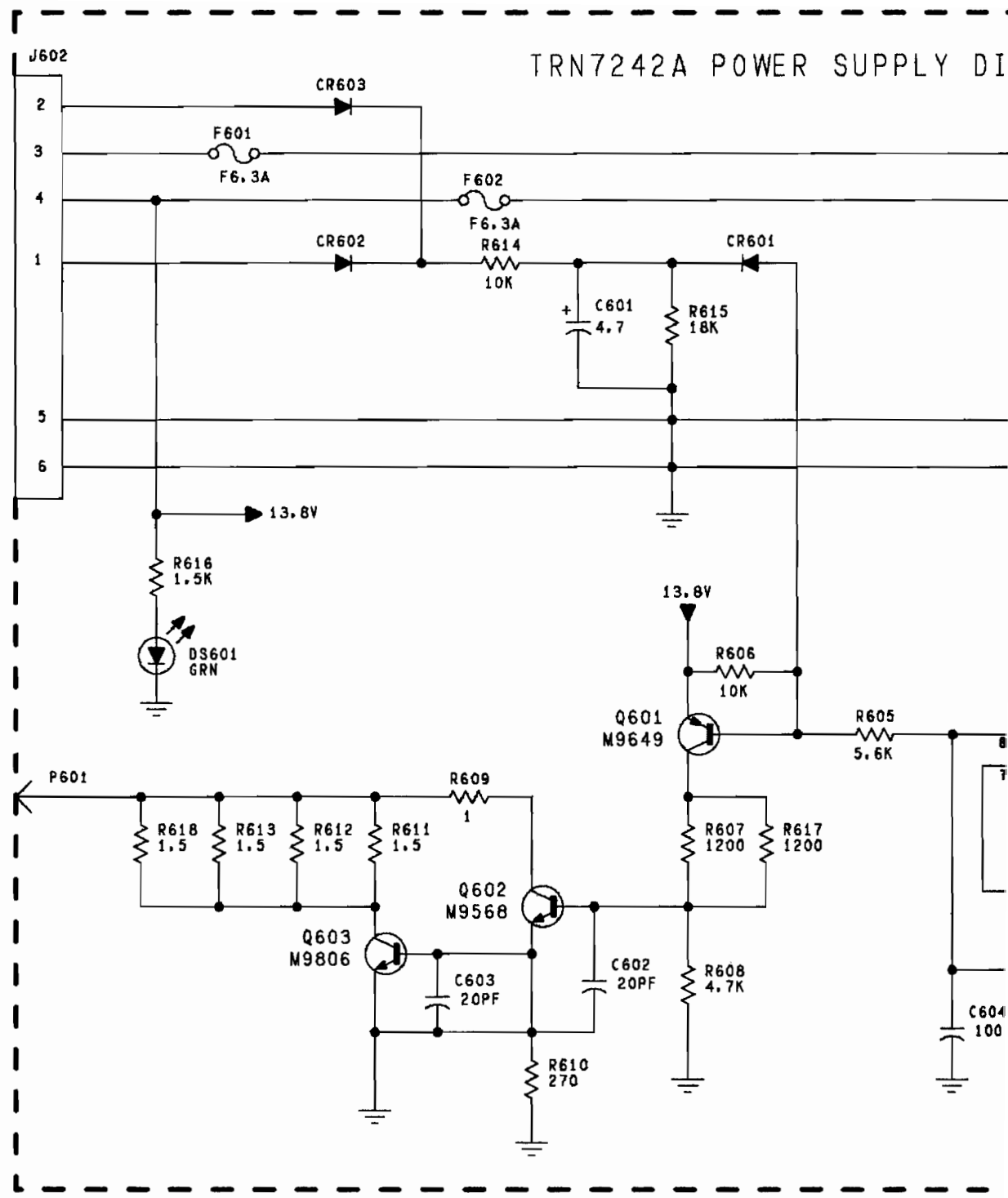
MODEL TRN7242A

CIRCUIT BOARD DETAIL



SHOWN FROM SOLDER SIDE

SOLDER SIDE ● BD-BEPS-47851-0 (REV)
● OL-BEPS-47853-0



RN7242A POWER SUPPLY DISTRIBUTION BOARD

J603

8
2
1
5
6
7
9
3
4

CR601

C601 4.7

R615 18K

13.8V

R606 10K

Q601 M9649

R605 5.6K

R607 1200

R617 1200

C602 20PF

R608 4.7K

R610 270

U601A 1/4 M21K74

U601B

C604 100PF

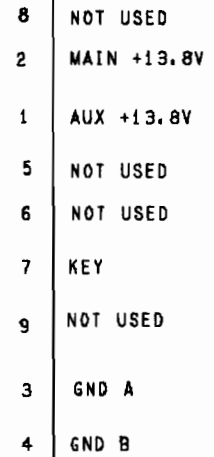
R601 3830

R602 3010

R603 1620

R604 680

VR601 5.1V



1. UNLESS OTHERWISE INDICATED, CAPACITOR VALUES ARE IN MILLIHENRIES.
2. VOLTAGES MEASURED AT INPUT RESISTANCE.
3. CIRCUIT CONDITIONS ARE AS SET APPROPRIATE.

TEPS-48304-0

POWER DISTRIBUTION BOARD

MODEL TRN7242A

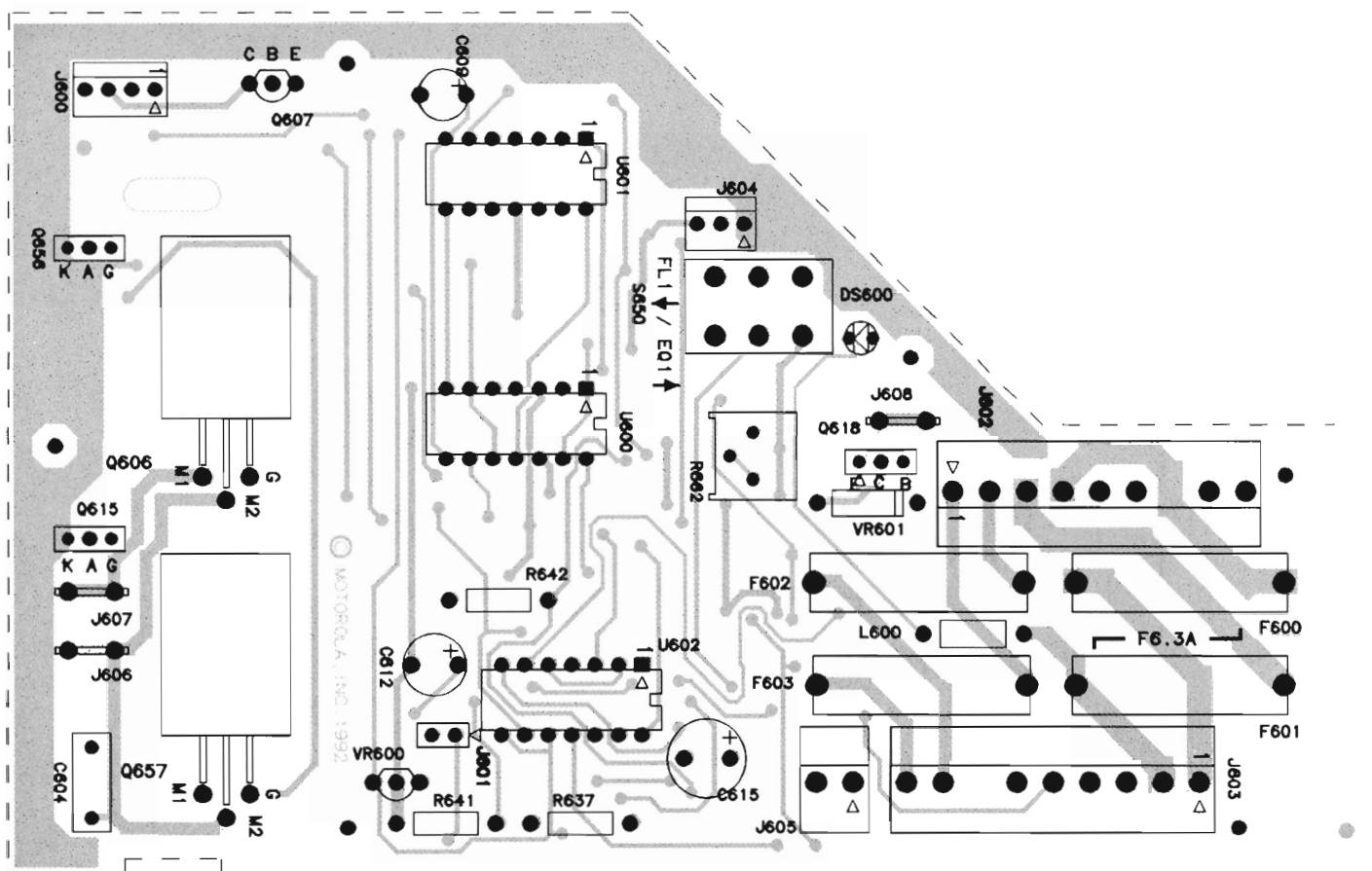
SCHEMATIC DIAGRAM DIAGRAM

1. UNLESS OTHERWISE INDICATED, RESISTOR VALUES ARE IN OHMS;
CAPACITOR VALUES ARE IN MICROFARADS, AND INDUCTOR VALUES ARE
IN MILLIHENRIES.
2. VOLTAGES MEASURED WITH DVM, WITH 1 M OHM OR GREATER
INPUT RESISTANCE.
3. CIRCUIT CONDITIONS: LOAD CURRENT = 2A, AT 110/220V ~ LINE
IN (S651 SET APPROPRIATELY).

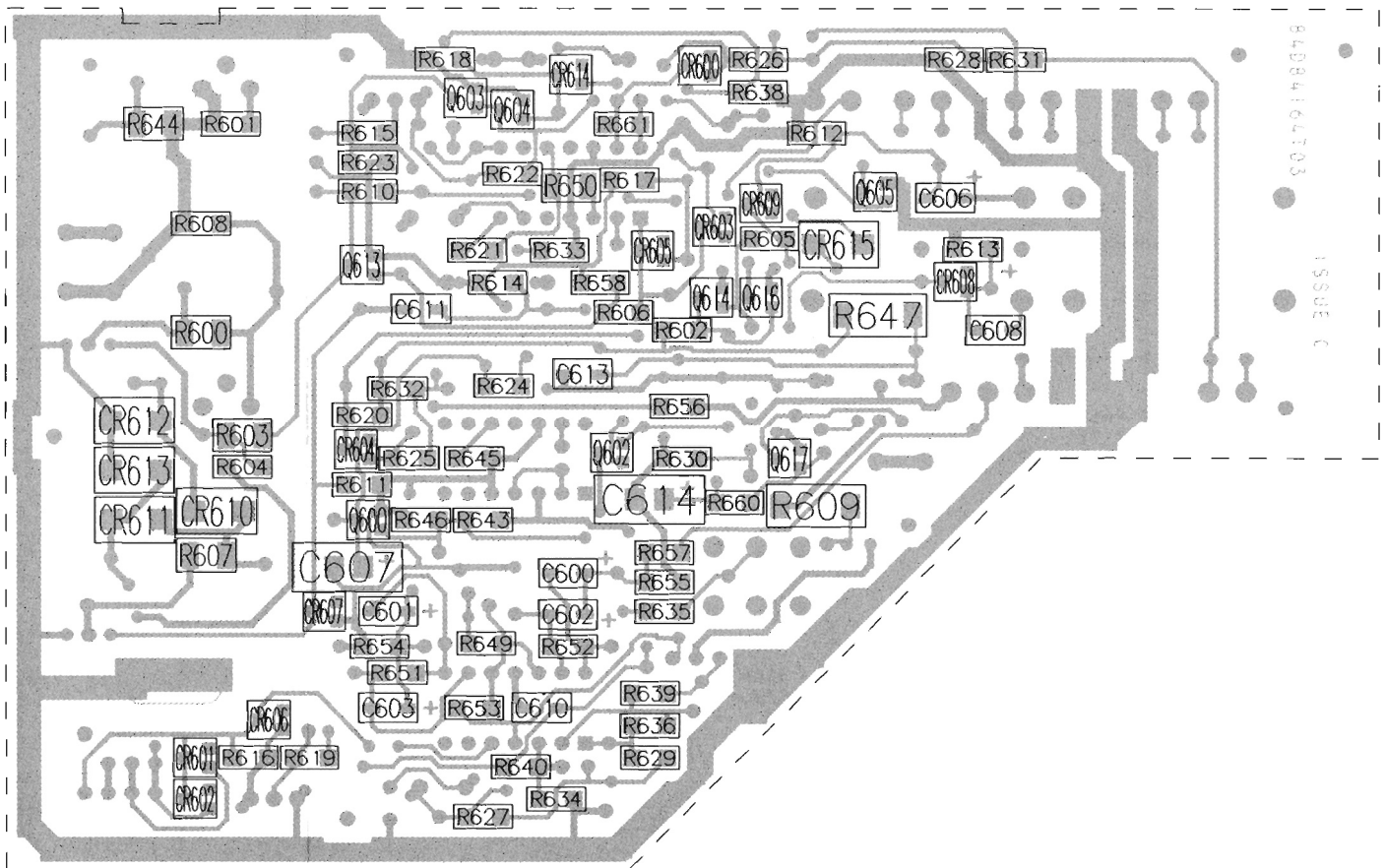
TEPS-48304-0

MODELS TRN7241B, TRN7277B, TRN7404B CIRCUIT BOARD DETAILS

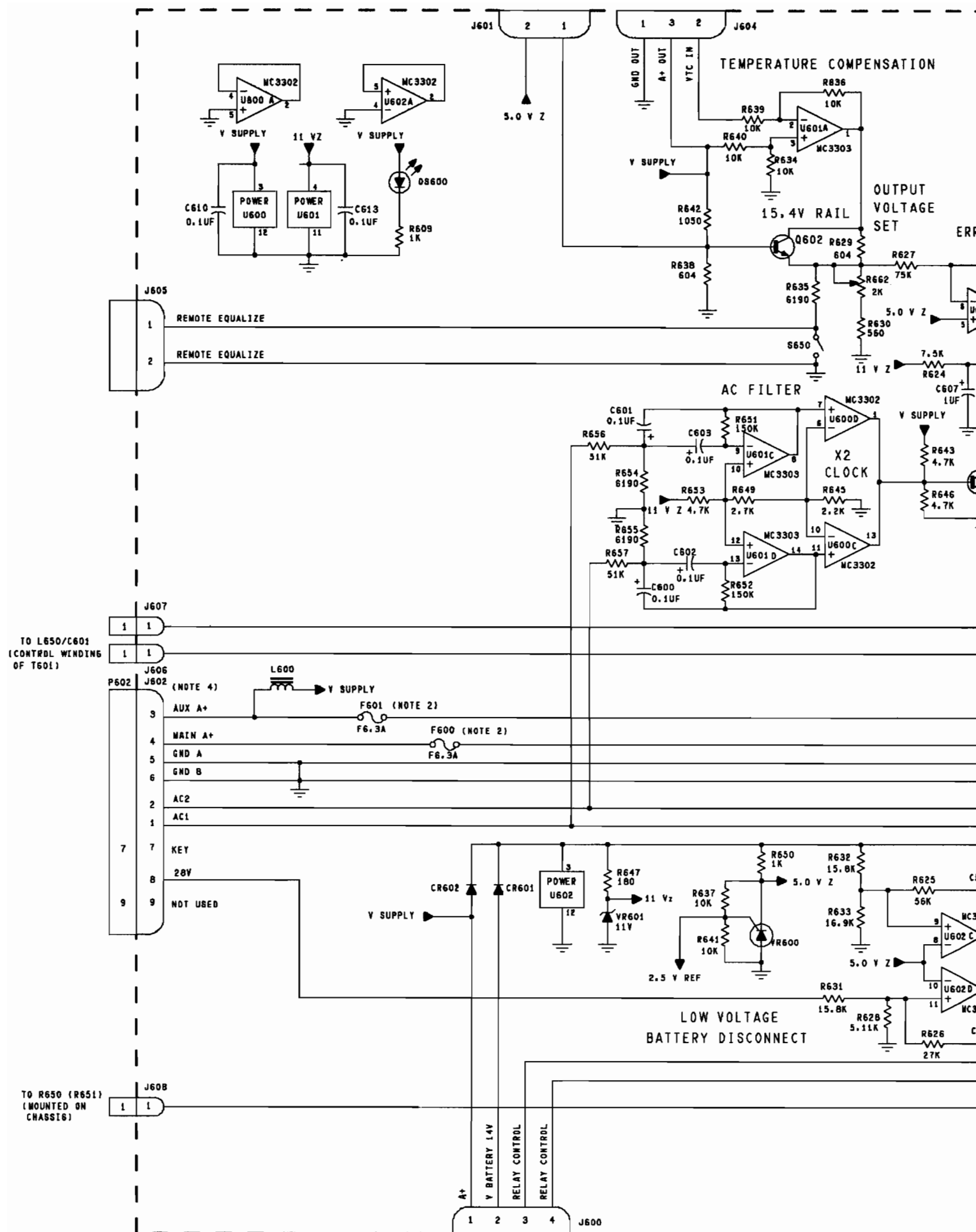
MODELS TRN7241B, TRN7277B, TRN7404B CIRCUIT BOARD DETAILS



COMP BD - TEPS-48680-O
OL BD - TEPS-48681-O



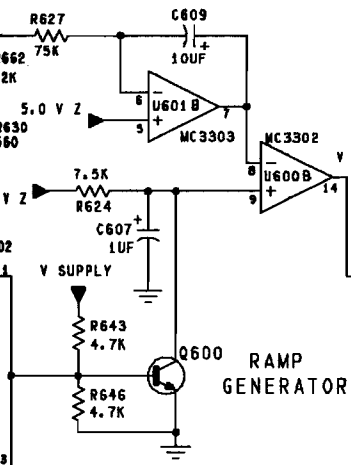
SOLD BD - TEPS-48682-O
CHIP BD - TEPS-48679-O



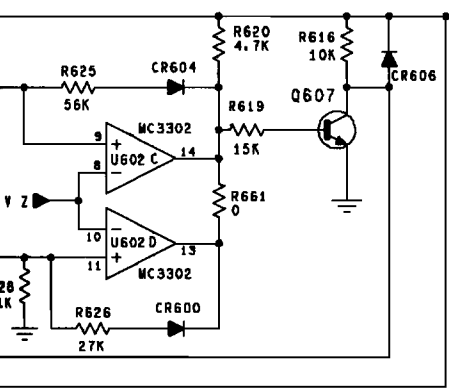
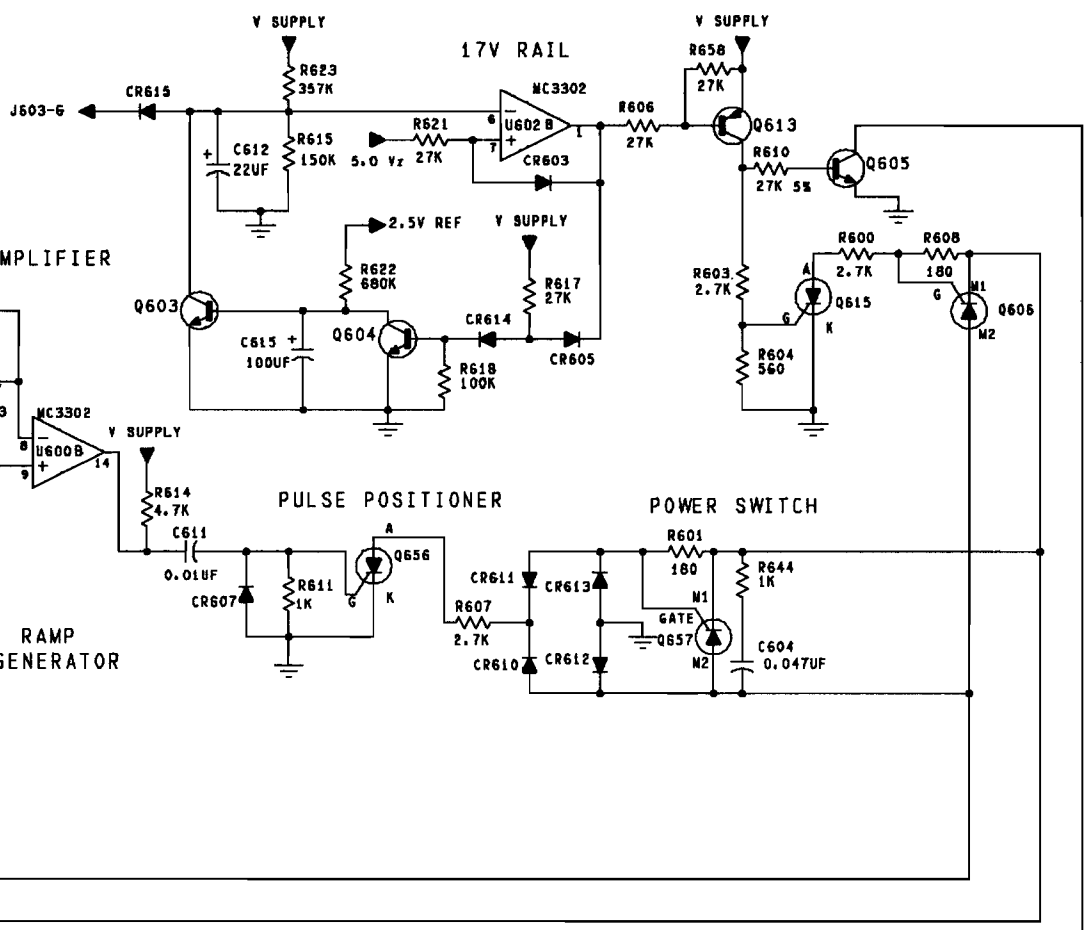
TRN7241B, TRN7277B OR TRN7404B BATTERY CHARGER CIRCUIT BOARD (NOTE 1)

NSATION

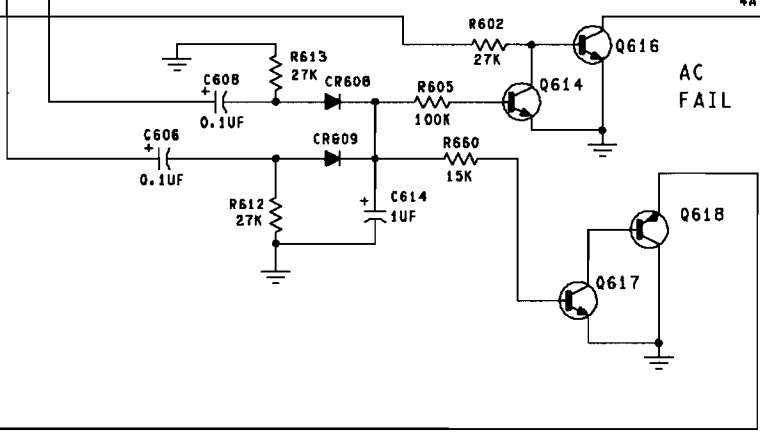
OUTPUT
VOLTAGE
SET



02
1
3
2



28
1K
27K



AC
FAIL

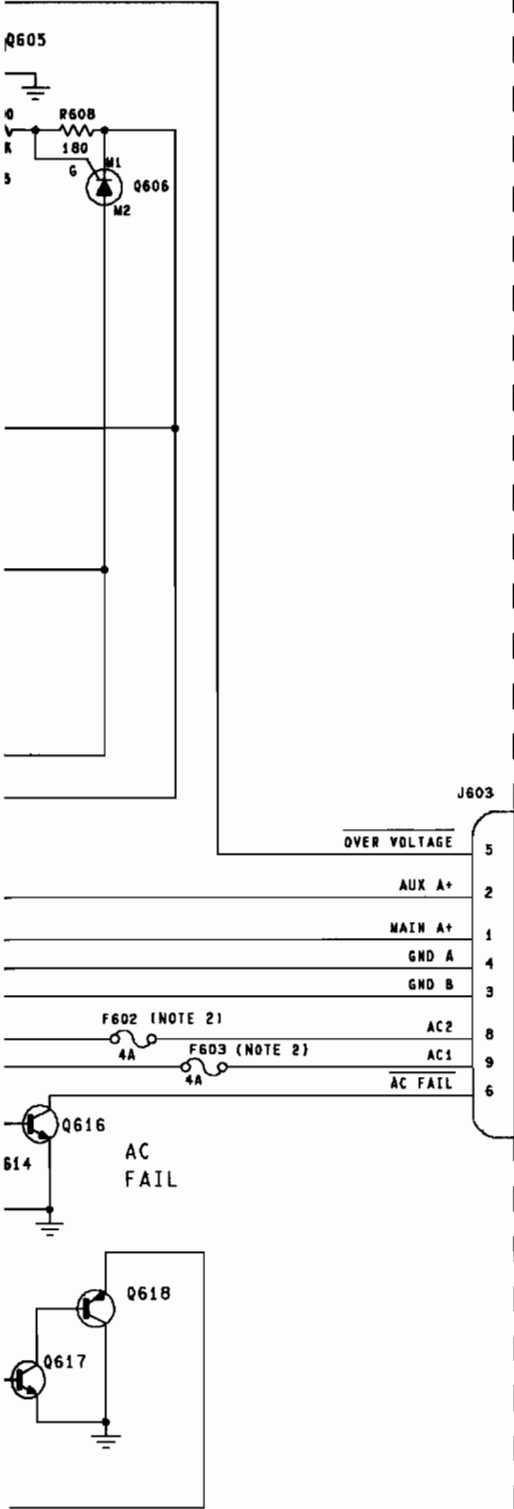
- J603
- OVER VOLTAGE
- AUX A+
- MAIN A+
- GND A
- GND B
- AC2
- AC1
- AC FAIL

5
2
1
4
3
8
9
6

BATTERY CHARGER CONTROL BOARD

MODELS TRN7241B, TRN7277B, TRN7404B

SCHEMATIC DIAGRAM



NOTES:

1. THE TRN7241B, TRN7277B AND TRN7404B BATTERY CHARGER BOARDS ARE IDENTICAL EXCEPT FOR THE PLACEMENT OF FUSES F600 THRU F603. AND CONNECTOR USED AT J602. SEE TABLE 1 AND NOTE 4.

TABLE 1. FUSE PLACEMENT

MODEL	FUSES PLACED			
	F600	F601	F602	F603
TRN7241B	YES	YES		
TRN7277B	YES	YES		
TRN7404B	YES	YES	YES	YES

2. FUSES F600 AND F601 ARE PART OF HARDWARE KITS TRN5620A, TRN5621A, TRN5968A, TRN7098A, TRN7116A, TRN7213A, TRN7229A, TRN7237A, TRN7332A OR TRN7274A WHICH ARE USED IN POWER SUPPLIES USING TRN7241B OR TRN7277B BOARDS. FUSES F602 F603 ARE PART OF TRN5299A CHASSIS KIT USED WITH TPN1189A AND TPN1190A POWER SUPPLIES WHICH USE THE TRN7404B BOARD.
3. UNLESS OTHERWISE SPECIFIED RESISTOR VALUES ARE IN OHMS, CAPACITOR VALUES ARE IN MICROFARADS, AND INDUCTOR VALUES ARE IN MILLIHENRIES.
4. THE TRN7241B AND TRN7404B USE A 6 PIN CONNECTOR AT J602. PINS 7, 8 AND 9 SHOWN ARE ONLY AVAILABLE ON TRN7277B.

LEGEND:

	IN THIS MANUAL	INTERNATIONAL EQUIVALENT
THEORY NOTE		
CHASSIS PROTECTIVE EARTH GND		
CIRCUIT GND		