

LPS10 Active

LPS12 Active

LPSMON Active

AMPLIFIED LOUDSPEAKER SYSTEM



Amplified Loudspeaker System LPS 12 A

TECHNICAL SPECIFICATIONS				
		LPS 10	LPS 12	LPS MONITOR
POWER AMPLIFIER	W continuous	150	200	200
	W peak	300	400	400
INPUT IMPEDANCE	Kohms	30(balanced) 15(unbalanced)	30(balanced) 15(unbalanced)	30(balanced) 15(unbalanced)
INPUT SENSITIVITY	dB	0 (0.775V)	0 (0.775V)	0 (0.775V)
SPL at 1W/1m	dB	96	98	98
MAX SPL	dB	117	121	121
FREQUENCY RESPONSE	Hz(-10dB)	70-18000	60-18000	60-18000
DISPERSION (0xV)	°	60x40	60x40	60x41
CROSSOVER FREQUENCY	Hz	3500 at 12dB/ott.	3500 at 12dB/ott.	3500 at 12dB/ott.
COMPONENTS	HIGH	Compression tweeter with elliptical waveguide and electronic protection.	Compression tweeter with elliptical waveguide and electronic protection.	Compression tweeter with elliptical waveguide and electronic protection.
	LOW	10" low frequency speaker	12" low frequency speaker	12" low frequency speaker
CONSTRUCTION		Cabinet in chipboard covered with PVC. Metal grid. Polypropylene corners.	Cabinet in chipboard covered with PVC. Metal grid. Polypropylene corners.	Cabinet in chipboard covered with PVC. Metal grid. Polypropylene corners.
CONTROLS		Volume control SIGN/COMP LED	Volume control SIGN/COMP LED	Volume control SIGN/COMP LED
CONNECTIONS		XLR+JACK (in parallel)	XLR+JACK (in parallel)	XLR+JACK (in parallel)
POWER SUPPLY		see label on the apparatus		
DIMENSIONS	mm (LxAxP)	342x465x310	400x520x355	400x520x300
	in.(W xHxD)	13.4x18.4x12.2	15.6x20.4x14	15.6x20.4x11.8
WEIGHT	Kg - lbs.	16 -35.2	21 - 46.2	19 - 41.8

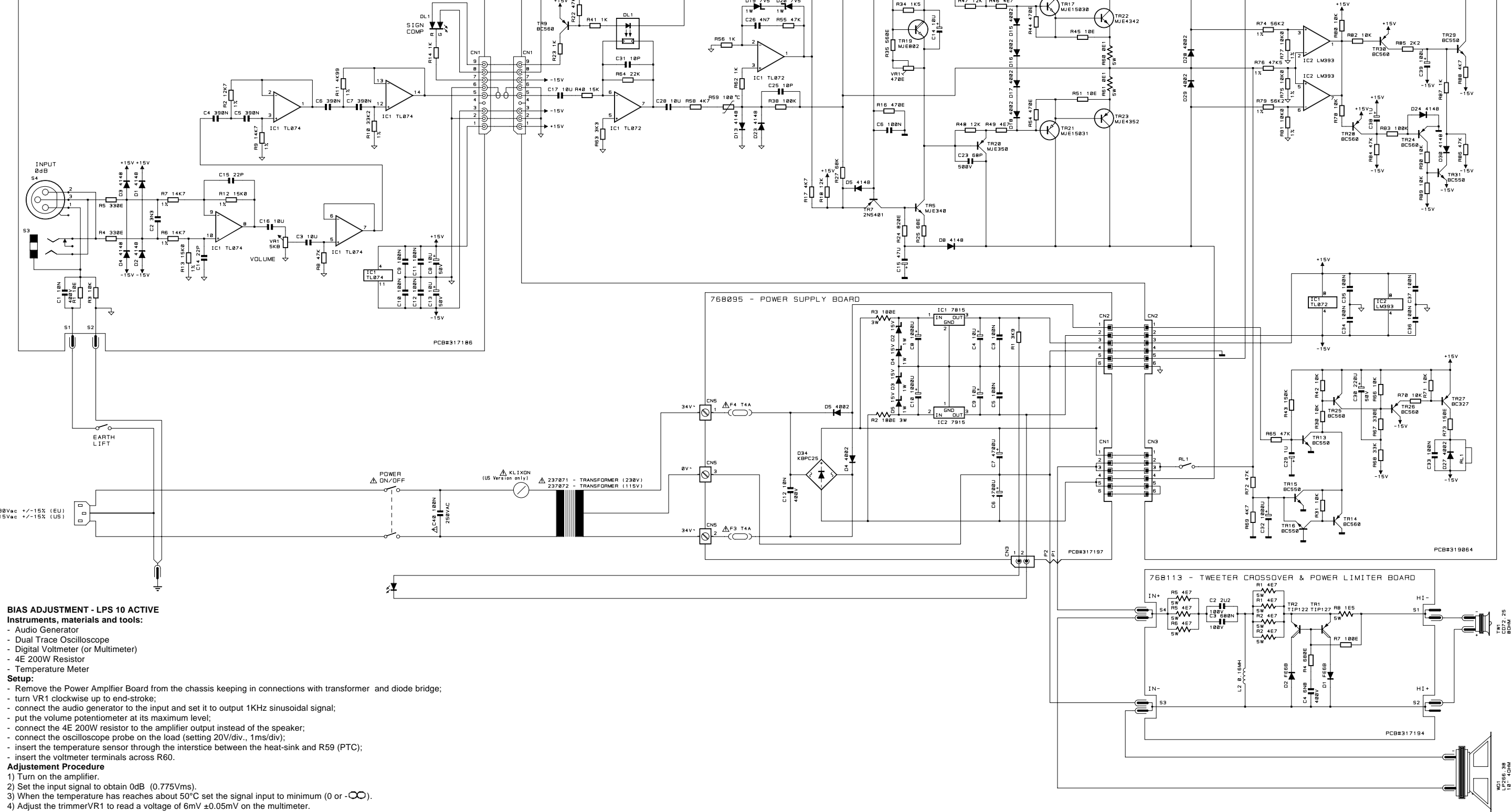
GENERALMUSIC S.p.A. Sales Division: 47048 S.Giovanni in Ma

768092 - 150W POWER AMPLIFIER BOARD

769091 - INPUTS &amp; CONTROLS BOARD

768095 - POWER SUPPLY BOARD

768113 - TWEETER CROSSOVER &amp; POWER LIMITER BOARD

**BIAS ADJUSTMENT - LPS 10 ACTIVE****Instruments, materials and tools:**

- Audio Generator
- Dual Trace Oscilloscope
- Digital Voltmeter (or Multimeter)
- 4E 200W Resistor
- Temperature Meter

**Setup:**

- Remove the Power Amplifier Board from the chassis keeping in connections with transformer and diode bridge;
- turn VR1 clockwise up to end-stroke;
- connect the audio generator to the input and set it to output 1KHz sinusoidal signal;
- put the volume potentiometer at its maximum level;
- connect the 4E 200W resistor to the amplifier output instead of the speaker;
- connect the oscilloscope probe on the load (setting 20V/div., 1ms/div);
- insert the temperature sensor through the interstice between the heat-sink and R59 (PTC);
- insert the voltmeter terminals across R60.

**Adjustement Procedure**

- 1) Turn on the amplifier.
- 2) Set the input signal to obtain 0dB (0.775Vms).
- 3) When the temperature has reaches about 50°C set the signal input to minimum (0 or  $\infty$ ).
- 4) Adjust the trimmer VR1 to read a voltage of 6mV  $\pm$  0.05mV on the multimeter.
- 5) Check that the voltage across the R61 resistor has the same value.

**Verifying:**

- 1) Increase the input level to obtain an output voltage about of 0.5Vpp.
- 2) Check with the oscilloscope that the output signal is without a cross-talk distortion and eventually slightly adjust the VR1 position until distortion disappears.
- 3) The voltage value across the R60 and R61 resistors must not exceed 6mV.
- 4) Re-connect the speaker instead of the 4E 200W resistor.

DRW I. BATELLI	DWG# 550551	PCB#	GENERALMUSIC S.p.A. ITALY
CKD I. BATELLI	DSK# 48 PART: 1/1	SCHEMATIC DIAGRAM LPS 10 ACTIVE	ALL RIGHTS ARE RESERVED. NO COPIES
APP.C. ZUCCATTI	REV: 28-03-97	AMPLIFIED LOUDSPEAKER SYSTEM	OR REPRODUCE THIS DOCUMENT WITHOUT
			WRITTEN CONSENT BY GENERALMUSIC.



## SPARE PARTS - LPS10 Active

<b>ACCESSORIES</b>	
887069	Signal Cable (15m)
277305	Owner's Manual
<b>VARIOUS</b>	
667594	Power Amplifier Panel
659027	Cyl. Knob White Cap
237071	150W Transformer (EU)
237072	150W Transformer (US)
110614	Mains Socket
110291	Power Switch
110029	T4A Fuse 5x20mm (EU)
110036	T4A Fuse 6.3x32mm (US)
080607	Kbpc25 25a 200V Bridge Rectifier Diode
717042	Wooden Part
667629	Metal Grid
347341	Elliptical Horn
347287	Plastic Handle
347286	Plastic Setted Handle
347263	Plastic Flange
347187	Plastic Grip
229034	8Ω Tweeter
227042	10" Woofer
177123	Driver Support
130297	Mains Cord (EU)
130283	Mains Cord (US)

## Tweeter Crossover & Power Limiter Board

768113	Tweeter Crossover & Power Limiter Board (PCB#317194)	
230536	*	0.16mh 1mm Crossover Coil
090559	*	TIP122 TO220 Npn Darlington Transistor
090558	*	TIP127 TO220 Pnp Darlington Transistor
080171	*	Fe6b 6a 100V Fast Recovery Diode
030095	*	2u2 100V 20% Axial Electrolytic Bipolar Capacitor
020661	*	680n 100V10% MKT Polyester Capacitor
020205	*	6n8 400V 10% MKT Polyester Capacitor

## Inputs & Controls Bard

768091	Inputs & Controls Bard (PCB#317186)	
141187	*	XLR Female Horizontal Connector
140929	*	9 Contacts Vert Male Connector
140217	*	Horizontal Jack Stereo Slim Socket
100084	*	TL074 Quad J-Fet Operational Amplifier
080734	*	Led 2.5x5mm Rect Diff Red-Grn
080103	*	1N4148 100mA 75V Signal Diode
074570	*	5K lin. 31 clicks Potentiometer
042665	*	33K2 1/4w 1% Metalized Film Resistor
042625	*	15K0 1/4w 1% Metalized Film Resistor
042621	*	14K7 1/4w 1% Metalized Film Resistor
042614	*	12K7 1/4w 1% Metalized Film Resistor
042565	*	4K99 1/4w 1% Metalized Film Resistor

## 150W Power Supply Board

768095 Power Supply Board (PCB#317197)		
140917	*	2 Contacts Vert Male Connector
140069	*	H 3c P=10mm Terminal Block
110119	*	Fuse Clip 10A max (EU) (US)
100060	*	7815 +15V 1A Voltage Regulator
100049	*	7915 -15V 1A Voltage Regulator
080342	*	30V 1W 5% Zener Diode
080156	*	1N4002 1A 100V Rectifier Diode
030722	*	1000u 35V 20% Vert Electrolytic Capacitor
030555	*	4700u 50V 20% Snap-In Electrolytic Capacitor

## 180W Power Amplifier Board

758092	180W Power Amplifier Board (PCB#319064)	
757942	*	Photore Coupler
140929	*	9 Contacts Vert Male Connector
140927	*	24 Contacts Vert Male Strip
110316	*	Relay 24V / 1 Switch no 16A 250V
100904	*	LM393 Dual Comparator
100061	*	TL072 Dual J-Fet Operational Amplifier
090917	*	MJE350 TO126 Pnp Transistor
090916	*	MJE340 TO126 Npn Transistor
090201	*	2n5401 To92 Pnp Transistor
090200	*	2n5550 To92 Npn Transistor
090194	*	BC560 TO92 LN Pnp Transistor
090183	*	Bc550 To92 Ln Npn Transistor
090153	*	BC327 TO92 Pnp Transistor
080245	*	7V5 1w 5% Zener Diode

080156	*	1N4002 1A 100V Rectifier Diode
080103	*	1N4148 100mA 75V Signal Diode
070105	*	470e 20% Vertical Linear Trimmer
042695	*	56K2 1/4w 1% Metalized Film Resistor
042685	*	47K5 1/4w 1% Metalized Film Resistor
042605	*	10K0 1/4w 1% Metalized Film Resistor
030715	*	1000u 6v3 20% Vert Electrolytic Capacitor
030564	*	220u 50V 20% Vert Electrolytic Capacitor
030486	*	100u 50V 20% Vert Electrolytic Capacitor
090920	*	Mje803 To126 Npn Dari Transistor
090919	*	Mje15031 To220 Pnp Transistor
090918	*	MJE15030 To220 Npn Transistor
090913	*	MJE4352 TO218 Pnp Transistor
090912	*	MJE4342 TO218 Npn Transistor
080821	*	Ptc 90 Pth59f04be222ts

[illegible][illegible][illegible][illegible][illegible]

## SPARE PARTS - LPS12 Active & LPS MONITOR Active

<b>ACCESSORIES</b>	
887069	Signal Cable (15m)
277305	Owner's Manual
<b>VARIOUS</b>	
667594	Power Amplifier Panel
659027	Cyl. Knob White Cap
237066	180W Transformer (EU)
237067	180W Transformer (US)
190133	Lateroid Insulator For Screw Block
110614	Mains Socket
110291	Power Switch
110029	T4A Fuse 5x20mm (EU)
110036	T4A Fuse 6.3x32mm (US)
080607	Kbpc25 25a 200V Bridge Rec Dio
717043	Wooden Part ( LPS 12 Active)
717047	Wooden Part ( LPS MONITOR Active)
667630	Metal Grid
347341	Elliptical Horn
347287	Plastic Handle
347286	Plastic Setted Handle
347263	Plastic Flange
347187	Plastic Grip
229034	8Ω Tweeter
227043	12" Woofer
130297	Mains Cord (EU)
130283	Mains Cord (US)

## Tweeter Crossover & Power Limiter Board

768114 Tweeter Crossover & Power Limiter Board (PCB#317194)		
230536	*	0.16mh 1mm Crossover Coil
090559	*	TIP122 TO220 Npn Darlington Transistor
090558	*	TIP127 TO220 Pnp Darlington Transistor
080171	*	Fe6b 6a 100V Fast Recovery Diode
020700	*	2u2 100V 10% MKT Polyester Capacitor
020661	*	680n 100V10% MKT Polyester Capacitor
020205	*	6n8 400V 10% MKT Polyester Capacitor

## Inputs & Controls Bard

768091	Inputs & Controls Bard (PCB#317186)	
141187	*	XLR Female Horizontal Connector
140929	*	9 Contacts Vert Male Connector
140217	*	Horizontal Jack Stereo Slim Socket
100084	*	TL074 Quad J-Fet Operational Amplifier
080734	*	Led 2.5x5mm Rect Diff Red-Grn
080103	*	1N4148 100mA 75V Signal Diode
074570	*	5K lin. 31 clicks Potentiometer
042665	*	33K2 1/4w 1% Metalized Film Resistor
042625	*	15K0 1/4w 1% Metalized Film Resistor
042621	*	14K7 1/4w 1% Metalized Film Resistor
042614	*	12K7 1/4w 1% Metalized Film Resistor
042565	*	4K99 1/4w 1% Metalized Film Resistor

## 200W Power Supply Board

768098 200W Power Supply Board (PCB#317197)		
140917	*	2 Contacts Vert Male Connector
140069	*	H 3c P=10mm Terminal Block
110119	*	Fuse Clip 10A max (EU) (US)
100060	*	7815 +15V 1A Voltage Regulator
100049	*	7915 -15V 1a Voltage Regulator
080342	*	30V 1w 5% Zener Diode
080156	*	1N4002 1A 100V Rectifier Diode
030722	*	1000u 35v 20% Vert Electrolytic Capacitor
030560	*	4700u 80v 20% Snap-In Electrolytic Capacitor

## 180W Power Amplifier Board

758093	180W Power Amplifier Board (PCB#319064)	
757942	*	Photore Coupler
140929	*	9 Contacts Vert Male Connector
140927	*	24 Contacts Vert Male Strip
110316	*	Relay 24V / 1 Switch no 16A 250V
100904	*	LM393 Dual Comparator
100061	*	TL072 Dual J-Fet Operational Amplifier
090917	*	MJE350 TO126 Pnp Transistor
090916	*	MJE340 TO126 Npn Transistor
090201	*	2n5401 To92 Pnp Transistor
090200	*	2n5550 To92 Npn Transistor
090194	*	BC560 TO92 LN Pnp Transistor
090183	*	Bc550 To92 Ln Npn Transistor
090153	*	BC327 TO92 Pnp Transistor
080245	*	7V5 1w 5% Zener Diode

080156	*	1N4002 1A 100V Rectifier Diode
080103	*	1N4148 100mA 75V Signal Diode
070105	*	470e 20% Vertical Linear Trimmer
042695	*	56K2 1/4w 1% Metalized Film Resistor
042685	*	47K5 1/4w 1% Metalized Film Resistor
042605	*	10K0 1/4w 1% Metalized Film Resistor
030715	*	1000u 6v3 20% Vert Electrolytic Capacitor
030564	*	220u 50V 20% Vert Electrolytic Capacitor
090920	*	Mje803 To126 Npn Darl Transistor
090919	*	Mje15031 To220 Pnp Transistor
090918	*	MJE15030 TO220 Npn Transistor
090913	*	MJE4352 TO218 Pnp Transistor
090912	*	MJE4342 TO218 Npn Transistor
080821	*	Ptc 90 Pth59f04be222ts

[illegible][illegible][illegible][illegible]

### Notes:

Each spare part is single quantity unless otherwise specified

Asterisk prefix explanation:

Omitted = First level spare part.

One asterisk = Second level, part of previous listed first level part.

Two asterisk = Third level, part of previous listed second level part.

Three asterisk =.....

Any request for not above mentioned part must encompass specific description including:

- 1) Model name,
- 2) Section,
- 3) Module code,
- 4) Reference name,
- 5) Quantity number.