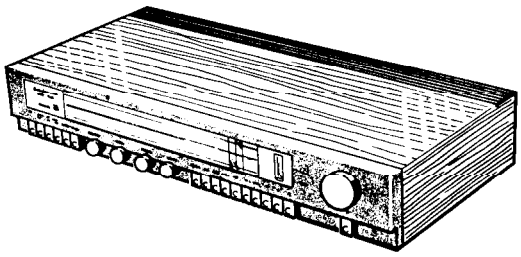
Goodmans

ONE-TEN

Stereo Radio-Amplifier



INSTALLATION NOTES

When used in conjunction with suitable ancillary equipment, the instrument provides high quality stereo or mono reproduction from gramophone records or VHF/FM broadcasts. A full performance specification is given on page 3.

Aerials

VHF-FM: A VHF aerial should be connected to the radio-amplifier via 240Ω-300Ω balanced twin-feeder or 60Ω-80Ω coaxial cable. Sockets for either type of feeder are incorporated on the rear panel, and suitable alternative plugs are provided for the cable terminations.

AM: The receiver has a built-in ferrite-rod aerial for long and medium waveranges and an AM aerial socket is provided for connecting a short wave aerial. Any short wave aerial connected will also be in circuit on medium and long waves and could affect the slightly directional properties of the ferrite-rod.

When balanced twin-feeder is used to connect the VHF-FM aerial it can also be utilised as an aerial on the AM ranges by means of the aerial linking switch adjacent to the aerial sockets. When used in this way it is not necessary to switch out the link when using the VHF-FM waverange.

Loudspeakers

A similar type loudspeaker of 4Ω-15Ω impedance is required for each left- and right-hand channel for good stereo reproduction. Electrostatic loudspeakers or systems of less than 4Ω must not be connected.

Two pairs of sockets are provided for loudspeaker connections. The second pair permits connection of extension loudspeakers. Either pair of speakers are then selected by pressing the appropriate button.

GOODMANS LOUDSPEAKERS LIMITED

Downley Road, Havant, Hampshire,

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ACCESS FOR SERVICE

Invert cabinet and from underside remove two screws and washers from each end to remove top cover. Place cabinet onto its feet then slide top cover off rearwards to expose chassis. For access to copper side of printed boards, remove ten screws securing metal base cover.

Escutcheon Removal

Pull off rotary control knobs, taking care not to lose 'D' shaped spacer, small friction spacer, and finger guard for tuning knob. Remove three screws from bottom front edge of escutcheon, then two screws at top of side rails securing escutcheon to chassis; compress nylon clips to release escutcheon. The scale is retained by two screws on to the diecast chassis front. The light diffuser is held by three screws to the rear of the diecast front.

Meter Replacement

Unsolder leads, release moulded spring clips and push meter from front to remove from escutcheon.

RF-IF Printed Board Removal

Detach bottom cover and front escutcheon assembly as described above then take out two PK screws securing flywheel frame to chassis end panel.

Remove two 4BA screws and shakeproof washers from each end of chassis front panel taking care not to lose nuts located in pockets in chassis end panels.

Pull off rotary controls and push-buttons (with exception of AFC push-button) then remove four PK screws and shakeproof washers securing push-button switches to front panel. Remove locking nuts, washers and plates securing rotary controls, then slide chassis front forward. Disconnect external wiring to printed board making a careful note of each connection.

Audio Printed Board Removal

Take out two 4BA screws and shakeproof washers from each end of chassis back panel taking care not to lose nuts located in pockets in chassis end panels.

Remove two PK screws and flat washers securing mains transformer mounting bracket to left-hand chassis end panel.

From chassis back panel take out two PK screws securing innermost end of inputs socket panel.

Remove 4BA output transistor fixing screws and shakeproof washers and also remove mica insulating washers.

Disconnect wiring, taking careful note of each connection, then pull printed board free of support clips.

ALIGNMENT DATA

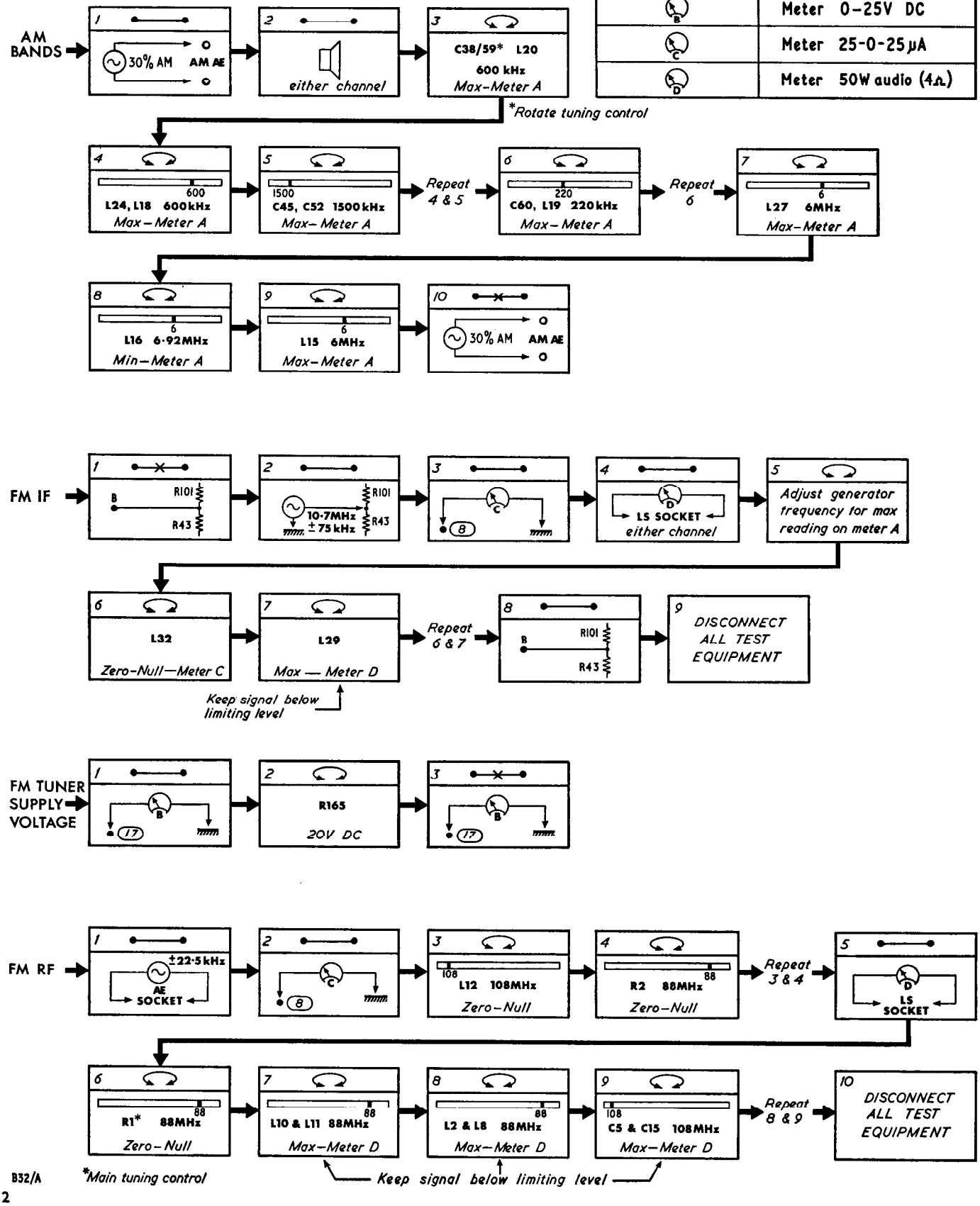
The procedure is shown in schematic form except for Multiplex Decoder Alignment which is described separately.

The tuning of the ferrite rod aerial is affected by the proximity of the lower cabinet fixing bracket. This effect must be compensated for during AM Alignment by fixing a piece of 16 S.W.G. aluminium of similar dimensions in the position normally occupied by the bracket.

During AM alignment adjust input signal so that Meter A does not exceed half full-scale deflection.

KEY

●—●	Connect
●—×—●	Disconnect
↻	Adjust
~	Signal Generator
A	Built-in tuning meter (M1)
B	Meter 0-25V DC
C	Meter 25-0-25μA
D	Meter 50W audio (4Ω)



FM MULTIPLEX DECODER ALIGNMENT

Although alignment of the Decoder panel is quite straightforward, no attempt should be made at realignment unless suitable equipment is available. This should consist of an Encoder providing a crystal controlled 19 kHz pilot signal and also a *Composite* signal that may be switched to provide a *Difference* signal, a *Sum* signal, and an easily identified left- and right-hand signal (or preferably separate left-hand and right-hand signals). These signals should be available as a multiplex audio output and also a modulation of a VHF signal.

First check FM IF and RF alignment. Connect meter on 2·5V DC range across R87. Connect output meters to each channel (it is assumed that audio checks have been made to ensure correct operation of audio circuits).

Set Encoder to VHF output (1mV) with *Composite Sum* signal modulation. This signal is to be used to ensure accurate tuning of the receiver to the test signal; it is therefore injected into aerial sockets and receiver carefully tuned with AFC off. When tuning is accomplished, AFC may be switched on to ensure that signal remains in IF pass band during Decoder alignment.

Set Balance control to give equal output from both channels.

Peak L34 and L36 for maximum negative voltage across R87. This voltage should be approximately 1·4 volts.

Switch encoder to difference signal and peak L39 for maximum audio output. Switch off encoder audio modulation but leave 19 kHz pilot tone. Insert 115 kHz modulation at encoder SCA input socket and adjust L33 for minimum audible 1 kHz tone.

Remove 115 kHz modulation and switch encoder to give left-hand only modulation at 1 kHz and adjust R78 for minimum right-hand output.

Output Quiescent Current (R149 and R149*)

Insert current meter between tag 30 and supply lead. Disconnect any load from output sockets. Adjust R149 to give minimum resistance (i.e. fully anticlockwise) and note current reading on meter. R149 should now be adjusted to increase this current by 3mA.

Transfer the meter connections to tag 30* and repeat the procedure adjusting R149* for the left-hand channel.

Audio Scratch Filter (L40 and L40*)

Inject 9 kHz signal into auxiliary inputs of sufficient strength to produce 30 watts output per channel with Scratch button released. Press Scratch button and adjust L40 on both the left- and right-hand channels to give minimum output.

FM Muting Level (R68)

With no signal input, R68 should be adjusted so that the RF noise level is just muted.

PERFORMANCE SPECIFICATION

AUDIO AMPLIFIER

POWER OUTPUT (measured 1 kHz sine wave with both channels working)

50 watts per channel into 4Ω.

40 watts per channel into 8Ω.

25 watts per channel into 15Ω.

Total Harmonic Distortion: Typically less than 0·01% at 30 watts: Less than 0·1% at any power output up to quoted maximum.

Total Music Power: 110 watts.

OUTPUT IMPEDANCE: Less than 0·1Ω.

DAMPING FACTOR
40 into 4Ω, 80 into 8Ω, 150 into 15Ω.

POWER BANDWIDTH
Exceeds response band-width of amplifier.

SENSITIVITY (measured at 1 kHz for maximum output)

Magnetic Pickup: 2·5mV into 56kΩ (with RIAA equalization within 1dB 40 Hz—20 kHz).

Ceramic Pickup: 200mV into 1 MΩ.

Tape Playthrough: 200mV into 100kΩ.

Overload Capability: +30dB on above figures.

FREQUENCY RESPONSE
15 Hz—45 kHz ±3dB, 20 Hz—20 kHz ±1dB.

TONE CONTROLS (reference 0dB = 1 kHz)

Bass: Typically ±18dB at 35 Hz.

Treble: Typically ±10dB at 10 kHz.

LOUDNESS CONTOUR (at -30dB Volume control setting)

Typically: +13dB at 50 Hz; +10dB at 15 kHz.

SCRATCH FILTER
Typically: -3dB at 6 kHz; -35dB at 9 kHz.

RUMBLE FILTER
Typically: -3dB at 45 Hz; -36dB at 10 Hz.

HUM & NOISE (weighted with psophometric filter measured to DIN 45 500)

Ceramic Pickup and Tape Inputs: -80dB.

Magnetic Pickup Input: -70dB.

CROSSTALK (any input): -45dB.

RADIO

FREQUENCY COVERAGE

Long Wave: 150 kHz—265 kHz.

Medium Wave: 525 kHz—1605 kHz.

Short Wave: 5·9 MHz—6·25 MHz (Band-spread).

VHF-FM: 87·5 MHz—108 MHz.

FM AERIAL

Balanced: 240Ω–300Ω.

Unbalanced: 60Ω–80Ω.

AM AERIALS

Internal ferrite-rod (Long and Medium waves).

Balanced FM aerial feeder can be linked to AM by switch for SW and/or Long and Medium.

FM SENSITIVITY

Typically 2μV into 240Ω for 30dB signal-to-noise ratio.

Typically 1μV into 75Ω for 30dB signal-to-noise ratio.

Overload Capability: 120dB FM signal strength above 1μV input.

Stereo Separation: 35dB at 1 kHz.

Pilot Tone Rejection (0dB at 75 kHz deviation): Better than -50dB.

Distortion: Typically 0·2% THD for 75 kHz deviation.

Scale Calibration Accuracy: Band ends within 0·1%, Mid-band within 0·3%.

Interstation Muting Level: 15μV stereo, 10μV mono.

IF Rejection: 90dB.

AM SENSITIVITY (for 20dB signal-to-noise ratio)

MW—Typically 20μV.

LW—Typically 40μV.

SW—Typically 20μV (Image rejection better than 55dB).

AGC RANGE: 10dB change in output for 80dB change in signal put level.

TAPE OUTPUT: 100mV into 100kΩ. (1mV per 1kΩ load impedance).

GENERAL

MAINS INPUT: 115–125V or 200–250V; 50–60 Hz. (as specified on back panel)

POWER CONSUMPTION: 180 Watts maximum.

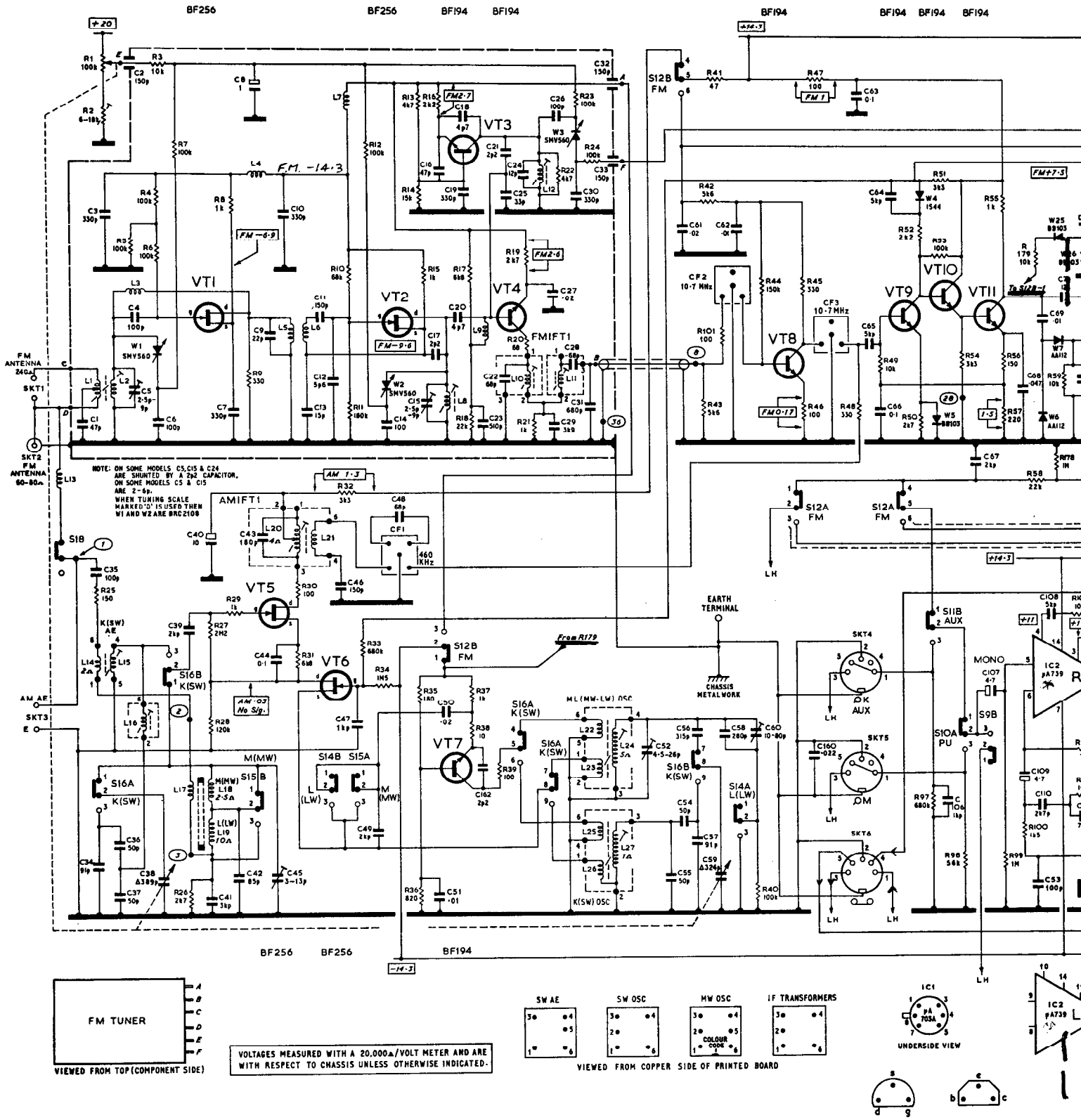
DIMENSIONS (OVERALL)

Length 584 mm; **Depth** 305 mm (incl. heat sink): **Height** 115 mm.

MAINS OUTLET: 1 Amp maximum.

WEIGHT: 27 lb (12·25kg).

FUSES: One 1AT, Four 2·5AT, Three 0·315AT.



RH 2·6mA 16·6

LH 12·8mA 15·8

Off set

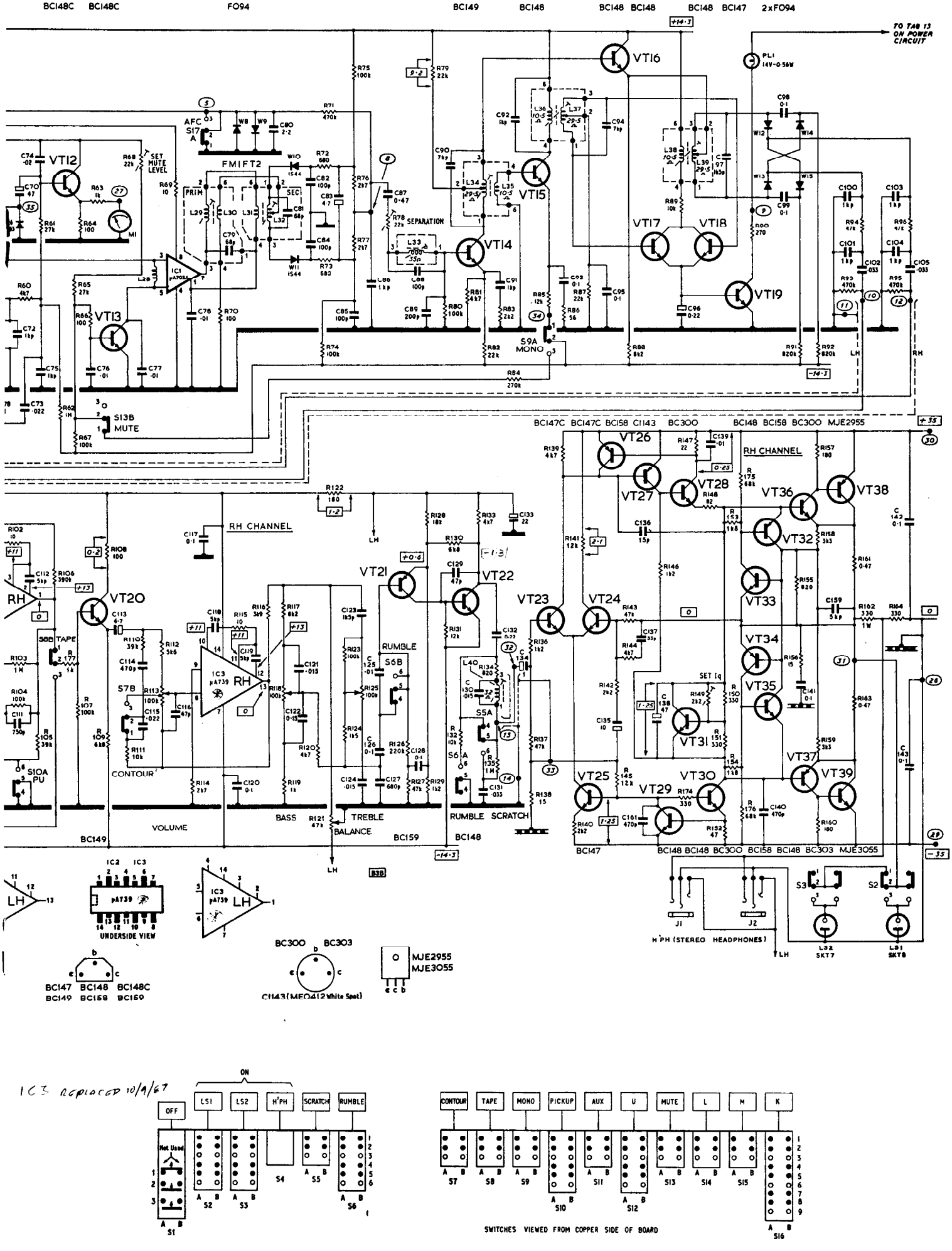
+5mV −10mV

SN 76131N

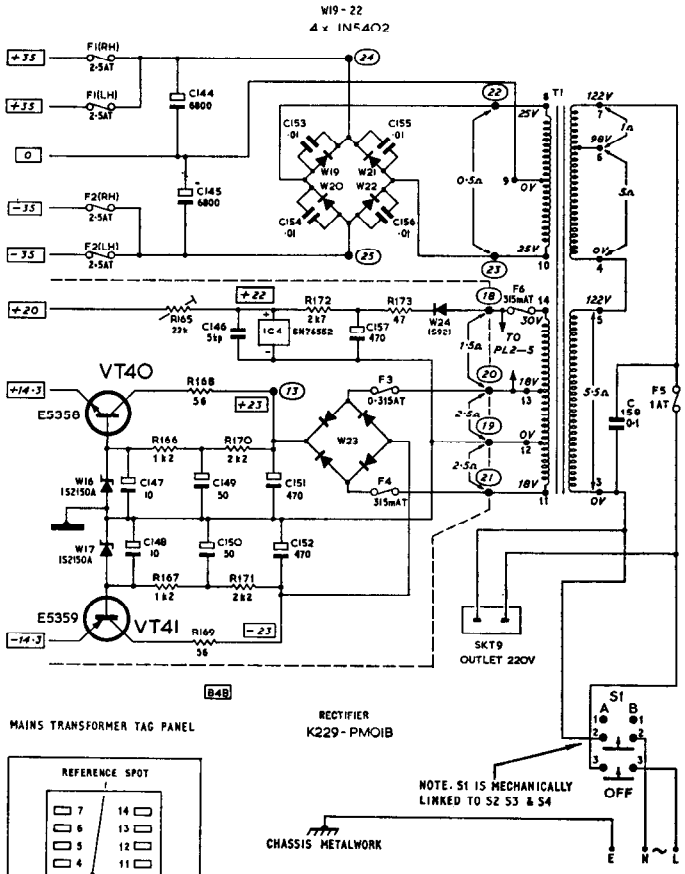
IC1 REPLACED 13/7/73

R106, 106* CHANGED TO 82K 13/7/73

W23 REPLACED WITH ICRA40 20/8/75



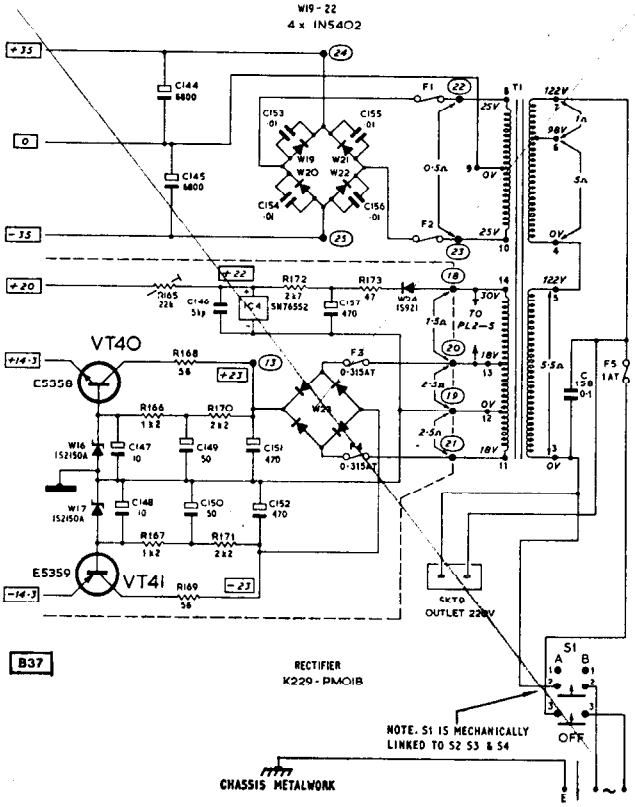
IC3 replaced 10/9/67



Above: Power Supply circuit as fitted in later production models, showing four fuses in the Power Amplifier DC supply rails.

E5358
E5359

Below: Alternative fusing arrangement in some models, with two fuses in the AC feed side of the Power Amplifier supply rectifier. The fuses are rated at 5 AT.



CIRCUIT DIAGRAM

Figures in rectangles, except where otherwise indicated, show voltages with respect to the zero earth rail taken with a 20,000 ohm/volt meter with no signal input. Ringed figures indicate printed board tag connection points.

Note: In some models a 10Ω resistor (R180—not shown in circuit diagram) is fitted in series with C18 and collector of VT3.

COMPONENT DETAILS

When ordering replacement capacitors and resistors for which no part numbers are given, please quote Model number and component details as stated below.

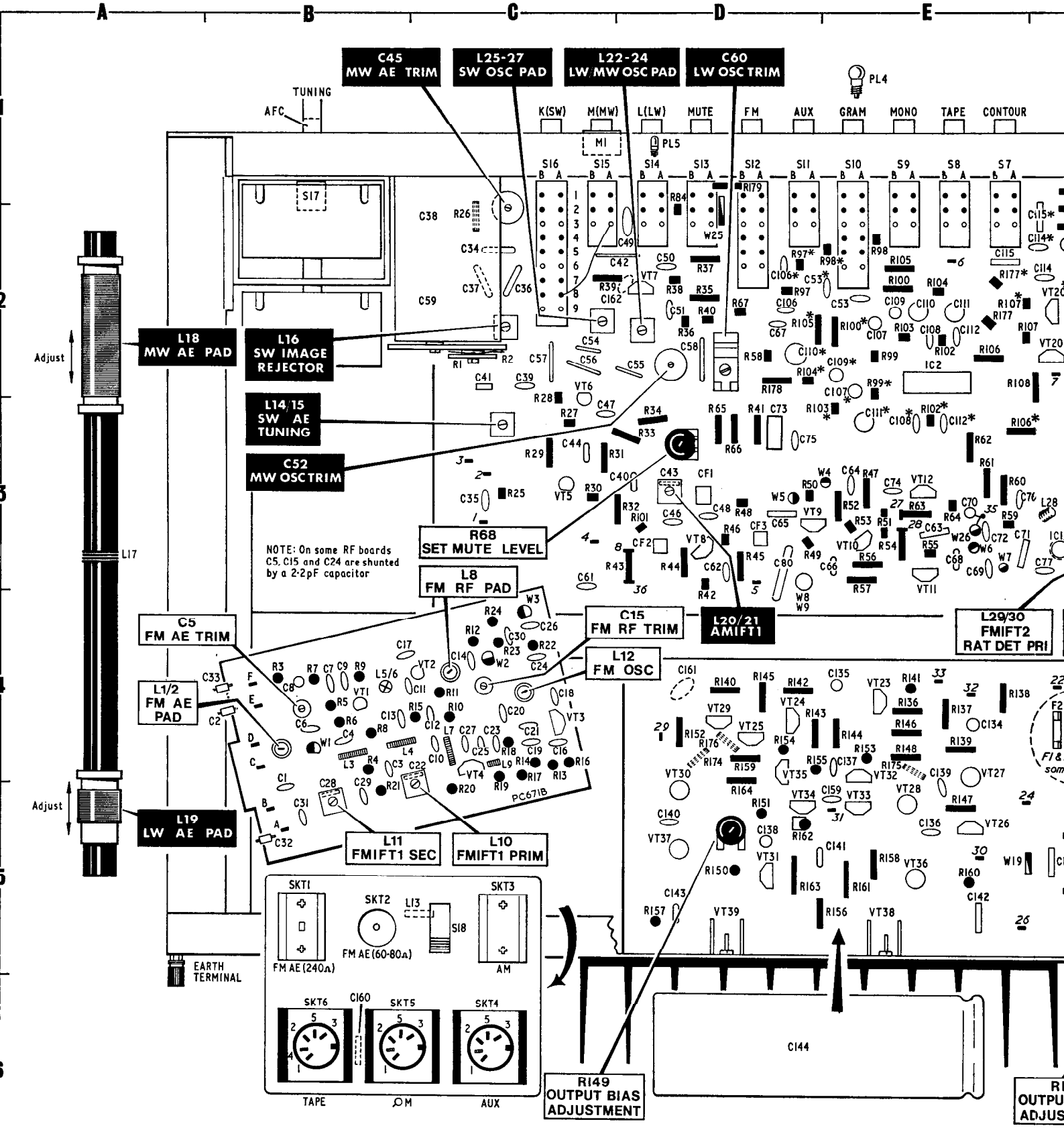
The second location column refers to LH channel components—marked * on locations diagram.

TRANSISTORS AND DIODES

REF	DESCRIPTION	LOC	
VT1	BF256, FM RF amplifier	B4	
VT2	BF256, FM RF amplifier	C4	
VT3	BF194, FM oscillator	C4	
VT4	BF194, FM mixer	C4,5	
VT5	BF256, AM mixer	C3	
VT6	BF256, Mixer degenerator (AGC)	C2,3	
VT7	BF194, AM oscillator	D2	
VT8	BF194, FM IF amplifier	D3	
VT9	BF194, FM-AM amplifier	DE3	
VT10	BF194, FM-AM amplifier	E3	
VT11	BF194, FM-AM amplifier	E3,4	
VT12	BC148C, AGC amplifier and tuning meter amplifier	E3	
VT13	BC148C, FM muting	F3	
VT14	BC149, 19 kHz amplifier	G3	
VT15	BC148, 19 kHz amplifier	GH3	
VT16	BC148, Emitter follower	G3,4	
VT17	BC148, Part doubler and 38 kHz amplifier ...	H3	
VT18	BC148, Part doubler and 38 kHz amplifier ...	H3	
VT19	BC147, Stereo lamp switching	H3	
VT20	BC149, Emitter follower	F2;	F2
VT21	BC159, Audio preamplifier and filter	H2;	H2
VT22	BC148, Audio preamplifier and filter	H2;	H2
VT23	BC147C, } Long-tailed pair	E4;	G4
VT24	BC147C, }	D4;	G4
VT25	BC147, Constant current generator (for VT23, VT24)	D4;	G4
VT26	BC158, Drive current limiter	E5;	H5
VT27	C1143, Driver	E4,5;	H4
VT28	BC300, Emitter follower	E4,5;	GH5
VT29	BC148, Part constant current generator (VT25, VT30)	D4;	FG4
VT30	BC300 Constant current generator (for VT28) ...	D4,5;	FG5
VT31	BC148, Bias for output transistors	D5;	G5
VT32	BC158, } Part overload protection	E4,5;	G4,5
VT33	BC148, } (connected as thyristors)	E5;	G5
VT34	BC158, } Part overload protection	D5;	D5
VT35	BC148, } (connected as thyristors)	D4,5;	G4
VT36	BC300, Part output compound pair (positive half cycle)	E5;	GH5
VT37	BC303, Part output compound pair (negative half cycle)	D5;	F5
VT38	MJE2955, Part output compound pair (positive half cycle)	E5;	GH5
VT39	MJE3055, Part output compound pair (negative half cycle)	D5;	G5
VT40	E5358, 14·3V positive supply line stabilizing ...	J3	
VT41	E5359, 14·3V negative supply line stabilizing ...	J3	
W1	Type BRC2108, FM aerial tuning (used with scales marked 'D')	B4	
	Type SMV560/2, FM aerial tuning	*B4*	
W2	Type BRC2108, FM RF amplifier tuning (used with scales marked 'D')	C4	
	Type SMV560/2, FM RF amplifier tuning ...	*C4*	
W3	Type BRC2108, FM oscillator tuning (used with scales marked 'D')	D3,4	
	Type SMV560/2, FM oscillator tuning	*D3,4*	
W4	Type IS44, IF AGC limiting	DE3	
W5	Type BB103, VT9 emitter degeneration bypass (AGC system)	D3	
W6	Type AA112, Part AM detector voltage doubler and AGC	E3	
W7	Type AA112, Part AM detector voltage doubler and AGC	E3	
W8 } W9	Type F094, Part FM AFC limiting	D3,4	D3,4
W10	Type 1S44, Part ratio detector	F3	
W11	Type 1S44, Part ratio detector	F3	
W12 } W13 } W14 } W15	2 × Type F094, LH and RH channel MPX switching diodes	H3	H3,4 H3,4 H3
W16	Type 1S2150A, Voltage stabilizing zener diode ...	J3	
W17	Type 1S2150A, Voltage stabilizing zener diode ...	J3	
W19 } W20 } W21 } W22	4 × Type 1N5402, 35V supply line rectifier ...	E5	F5 F5 F5
W23	Type K229-PM01B, 14·3V supply bridge rectifier ...	J3	
W24	Type 1S921, 20V supply rectifier	J3	
W25	Type BB103, Part diode switch, AGC decoupling ...	D2	
W26	Type BB103, Part diode switch, AGC decoupling ...	E3	

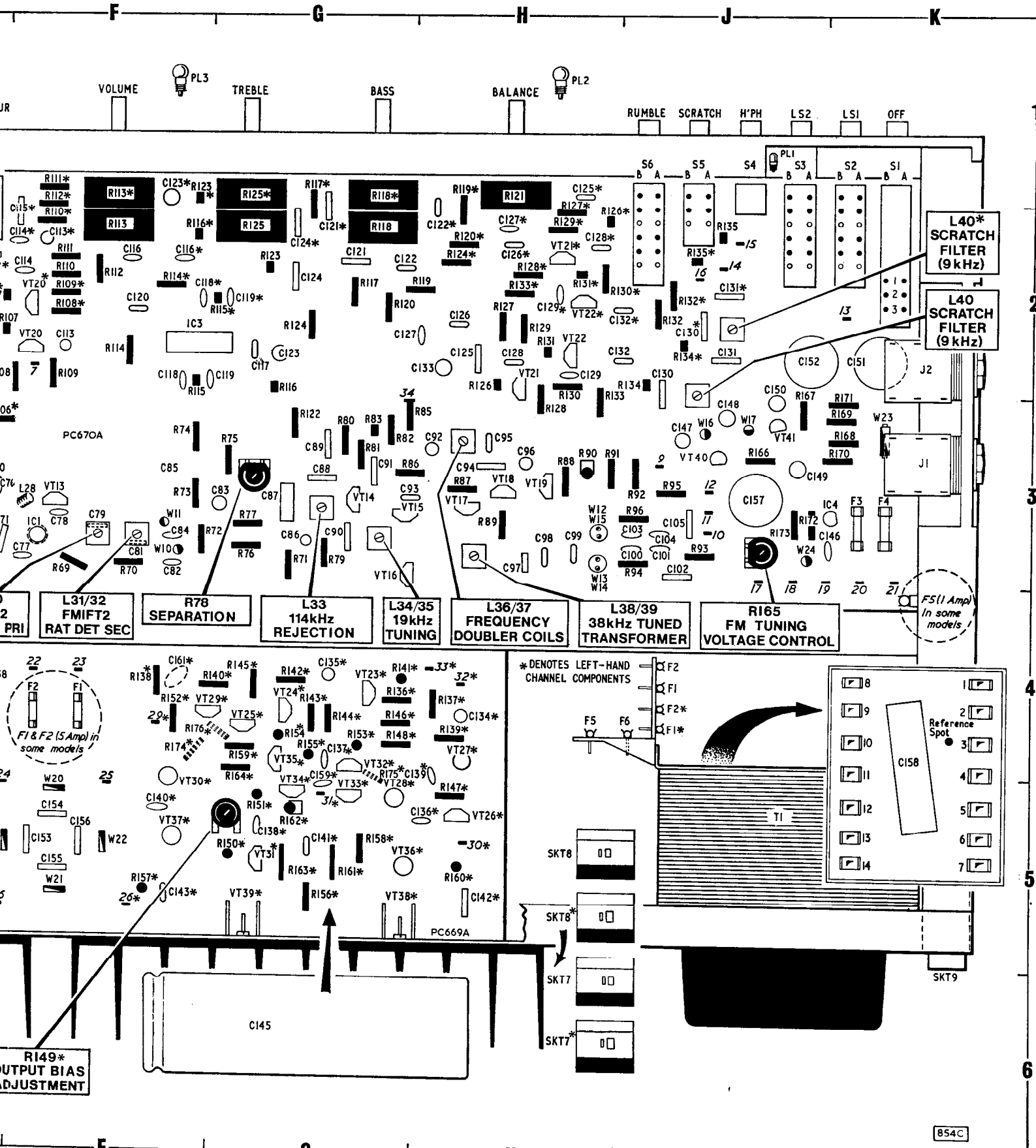
continued on page 7

Note alternative positions for F1, F
For details of alternative fusing ar



NT LOCATIONS

for F1, F2 and F5 in some models.
fusing arrangements, see page 5.



Component Details

(Continued from page 5)

CAPACITORS

REF	DESCRIPTION AND PART NO.	LOC
C1	47pF, 5%, 500V, Aerial input balance	B4,5
C2	150pF, Feedthrough, Pot. tuning control, RF bypass, 00E4-046-5	AB4
C3	330pF, 10%, 500V, VT1 supply line decoupling	DC4
C4	100pF, 5%, 500V, VT1 gate coupling	B4
C5	2·5–9pF, Preset, Part L2 tuning, 03E4-058-002	A4
C6	100pF, 5%, 500V, Part L2 tuning and DC blocking	B4
C7	330pF, 10%, 500V, VT1 source RF bypass	B4
C8	1μF, Tant. elec., 35V, W1-W3 tuning voltage decoupling, 00E0-220-17	B4
C9	27pF, 5%, 500V, L5 tuning	B4
C10	330pF, 10%, 500V, VT1-VT2 supply line RF bypass	C4
C11	150pF, 10%, 500V, VT2 gate coupling	BC4
C12	5·6pF, ±¼pF, 500V, Part L6 tuning	C4
C13	15pF, 5%, 500V, Part L6 tuning	B4
C14	100pF, 5%, 500V, Part L8 tuning and DC blocking	C4
C15	2·5–9pF, Preset, Part L8 tuning, 03E4-058-002	CD4
C16	47pF, 5%, 500V, FM oscillator phase correction	C4
C17	2·2pF, ±¼pF, 500V, VT2 neutralizing	BC4
C18	4·7pF, ±¼pF, 500V, FM oscillator feedback	C4
C19	330pF, 10%, 500V, VT3 base bias decoupling	C4
C20	4·7pF, ±¼pF, 500V, VT4 base coupling	C4
C21	2·2pF, ±¼pF, 500V, Part FM mixer coupling	C4
C22	68pF, L10 tuning (part FM IFT1)	C4,5
C23	510pF, 10%, 500V, Part 10·7 MHz rejector	C4
C24	14·2pF, (12pF + 2·2pF, ± ½pF, 500V) 5%, 500V, L12 tuning	C4
C25	33pF, 5%, 500V, Part FM mixer coupling	C4
C26	100pF, 5%, 500V, Part FM oscillator tuning and DC blocking	C4
C27	·02μF, 25%, 50V, VT4 emitter bypass	C4
C28	68pF, L11 tuning (part FM IFT1)	B5
C29	3900pF, 20%, 500V, L10-L11 coupling	B4,5
C30	330pF, 10%, 500V, Part L12 tuning and DC blocking	C4
C31	680pF, 10%, 500V, FM tuner output coupling	B5
C32	150pF, Feedthrough, FM tuner supply RF bypass, 00E0-046-5	B5
C33	150pF, Feedthrough, FM AFC line decoupling, 00E0-046-5	B4
C34	91pF, 2%, 350V, SW aerial bandspread	C2
C35	100pF, 10%, 500V, AM aerial coupling	C3
C36	50pF, 2%, 500V, Part SW aerial bandspread	C2
C37	50pF, 2%, 500V, Part SW aerial bandspread	C2
C38	389pF, Variable, AM aerial tuning, part 03E4-057	C2
C39	2000pF, 20%, 500V, VT5 signal coupling	C2
C40	0·1μF, 20%, 250V, VT5 supply decoupling	CD3
C41	3000pF, 5%, 30V, AM bottom end aerial coupling	C2
C42	85pF, 2%, 350V, LW fixed trimmer	CD2
C43	180pF, L20 tuning, (part AM IFT1)	D3
C44	0·1μF, 20%, 250V, VT5 source decoupling	C3
C45	3–13pF, Preset, MW aerial trimmer, 03E4-059-1	B1
C46	150pF, 20%, 500V, L21 tuning correction	D3
C47	1000pF, 10%, 500V, VT6 gate decoupling	C2,3
C48	68pF, 5%, 500V, CF1 bandpass coupling	D3
C49	2000pF, 20%, 500V, SW oscillator feedback	CD2
C50	·02μF, –20+80%, 50V, AM oscillator feedback coupling	D2
C51	·01μF, 20%, 50V, VT7 base bias decoupling	D2
C52	4·5–26pF, Preset, MW oscillator trimmer, 03E4-059-2	B3
C53	100pF, 10%, 500V, IC2 stabilizing compensation	DE2; DE2
C54	50pF, 2%, 500V, Part SW oscillator bandspread	C2
C55	50pF, 2%, 500V, Part SW oscillator bandspread	D2
C56	315pF, 2%, 200V, MW oscillator fixed padder	C2
C57	91pF, 2%, 350V, SW oscillator bandspread	C2
C58	280pF, 2%, 200V, LW oscillator fixed trimmer	D2
C59	324pF, Variable, AM oscillator tuning, part 03E4-057	BC2
C60	10–80pF, Preset, LW oscillator trimmer, 03E4-019-1	D1
C61	·02μF, –20+80%, 50V, FM IF decoupling	C3
C62	·01μF, 20%, 50V, VT8 collector decoupling	D3
C63	0·1μF, 20%, 250V, VT9-VT11 supply decoupling	E3
C64	5000pF, 25%, 50V, W4 RF bypass	E3
C65	5000pF, 25%, 500V, FM-AM IF coupling	D3
C66	0·1μF, 20%, 250V, VT9 bias decoupling	DE3
C67	2000pF, 20%, 500V, Part AM detector IF filter	D2
C68	·047μF, 10%, 250V, VT11 emitter bypass	E3
C69	·01μF, 20%, 50V, VT11 AM detector coupling	E3
C70	47μF, Tant. elec., 6·3V, AM AGC decoupling, 00E0-228-07	E3
C71	12pF, 10%, 500V, Part IC1 input tuning	EF3
C72	1000pF, 10%, 500V, Part AM detector IF filter	E3
C73	·022μF, 20%, 250V, AM AF output coupling	D2,3
C74	·02μF, –20+80%, 50V, AGC decoupling	E3
C75	1000pF, 10%, 500V, Part AM IF filter	D3
C76	·01μF, 20%, 50V, VT13 base decoupling	EF3
C77	·01μF, 20%, 50V, IC1 input decoupling	EF3
C78	·01μF, 20%, 50V, IC1 output decoupling	F3
C79	68pF, L29-L30 tuning (part FM IFT2)	F3
C80	2·2μF, +100–0%, 3V, AFC line decoupling	D3
C81	68pF, L31-L32 tuning (part FM IFT2)	F3
C82	100pF, 10%, 500V, Part ratio detector decoupling	F3
C83	4·7μF, Tant. elec., 35V, Ratio detector stabilizing, 00E0-221-04	FG3
C84	100pF, 10%, 500V, Part ratio detector decoupling	F3
C85	100pF, 10%, 500V, Part ratio detector output decoupling	F3
C86	1000pF, 10%, 500V, Part ratio detector output decoupling	G3
C87	0·47μF, 10%, 250V, Decoder input coupling	G3
C88	100pF, 2%, 350V, L33 tuning	G3
C89	200pF, 2%, 200V, Part VT14 low pass input filter	G3
C90	7000pF, 2½%, 30V, L34 tuning	G3
C91	1000pF, 2½%, 160V, HF compensation	G3
C92	1000pF, 2½%, 160V, VT15 collector bypass	H3

Capacitors—continued

REF	DESCRIPTION AND PART NO.	LOC
C93	0·1μF, 20%, 250V, 19kHz phase correction	GH3
C94	7000pF, 2½%, 30V, L37 tuning	H3
C95	0·1μF, 20%, 250V, VT17-VT19 bias decoupling	H3
C96	0·22μF, Tant. elec., 35V, VT17-VT18 emitter decoupling, 00E0-220-30	H3
C97	1500pF, 2½%, 30V, L39 tuning	H3
C98	0·1μF, 20%, 250V, DC blocking	H3
C99	0·1μF, 20%, 250V, DC blocking	H3
C100	1000pF, 10%, 500V, MPX detector output filter	HJ3
C101	1000pF, 10%, 500V, Part de-emphasis	J3
C102	·033μF, 20%, 250V, FM audio coupling (LH)	J3
C103	1000pF, 10%, 500V, MPX detector output filter	HJ3
C104	1000pF, 10%, 500V, Part de-emphasis	J3
C105	·033μF, 20%, 250V, FM audio coupling (RH)	J3
C106	1000pF, 10%, 500V, Ceramic pickup correction	D2; D2
C107	4·7μF, Tant. elec., 35V, IC2 AF coupling, 00E0-221-04	E2; E2,3
C108	5000pF, 25%, 50V, IC2 stability correction	E2; E2,3
C109	4·7μF, Tant. elec., 35V, IC2 feedback coupling, 00E0-221-04	E2; DE2
C110	2700pF, 5%, 160V, Magnetic pickup equalizing	E2; DE2
C111	750pF, 5%, 160V, Magnetic pickup equalizing	E2; E2,3
C112	5000pF, 25%, 50V, IC2 stability correction	E2; E2,3
C113	4·7μF, Tant. elec., 35V, VT20 output coupling, 00E0-221-04	F2; F2
C114	470pF, 10%, 500V, Part contour HF correction	EF2; EF2
C115	·022μF, 20%, 250V, Part contour LF correction	E2; F1,2
C116	47pF, 10%, 500V, Part IC3 stability compensation	F2; F2
C117	0·1μF, 20%, 250V, Supply line RF bypass	G2
C118	5000pF, 25%, 50V, Part IC3 stability compensation	F2; FG2
C119	5000pF, 25%, 50V, Part IC3 stability compensation	FG2; G2
C120	0·1μF, 20%, 250V, Supply line RF bypass	F2
C121	·015μF, 10%, 250V, Part bass control network	G2; G2
C122	0·15μF, 10%, 100V, Part bass control network	GH2; H2
C123	1500pF, 2½%, 160V, Part treble control network	G2; F1
C124	·015μF, 10%, 250V, Part treble control network	G2; G2
C125	·01μF, 10%, 250V, Part rumble filter	H2; H1
C126	0·1μF, 20%, 250V, VT21 AF coupling	H2; H2
C127	680pF, 10%, 500V, Top-cut filter	GH2; H2
C128	0·1μF, 20%, 250V, Part rumble filter	H2; H2
C129	47pF, 10%, 500V, VT22 stabilizing	H2; H2
C130	·015μF, 10%, 250V, 9 kHz whistle filter tuning	J2; J2
C131	·033μF, 20%, 250V, Part 9kHz whistle filter	J2; J2
C132	0·22μF, 10%, 250V, VT22 output coupling	HJ2; HJ2
C133	22μF, Elec., 35V, VT21-VT22 supply decoupling, 00E0-224-07	GH2
C134	1μF, Tant. elec., 35V, VT23 AF coupling, 00E0-220-17	E4; H4
C135	10μF, Tant. elec., 35V, DC blocking, 00E0-222-33	DE4; G4
C136	15pF, 20%, 500V, VT27 stabilizing	E5; GH5
C137	33pF, 20%, 500V, NFB HF compensation	E4; G4
C138	47μF, Tant. elec., 6·3V, Bias decoupling, 00E0-228-07	C5; G5
C139	·01μF, –20+80%, 50V, VT28 collector decoupling	E4; H4,5
C140	470pF, 20%, 500V, VT30 collector decoupling	C5; F5
C141	0·1μF, 20%, 250V, Part output stabilizing network	DE5; G5
C142	0·1μF, 20%, 250V, Supply RF bypass	E5; H5
C143	0·1μF, 20%, 250V, Supply RF bypass	C5; F5
C144	6800μF, Elec., 40V, +35V supply reservoir, 00E0-230-31	D6
C145	6800μF, Elec., 40V, –35V supply reservoir, 00E0-230-31	G6
C146	5000pF, 25%, 50V, IC4 HF decoupling	JK3
C147	10μF, Tant. elec., 25V, zener noise suppressor, 00E0-222-33	J3
C148	10μF, Tant. elec., 25V, Zener noise suppressor, 00E0-222-33	J2,3
C149	50μF, Elec., 25V, Zener supply smoothing, 00E0-228-13	JK3
C150	50μF, Elec., 25V, Zener supply smoothing, 00E0-228-13	J2,3
C151	470μF, Elec., 25V, W23 reservoir, 00E0-229-B7	K2
C152	470μF, Elec., 25V, W23 reservoir, 00E0-229-B7	JK2
C153	·01μF, 10%, 250V, Interference suppressor	F5
C154	·01μF, 10%, 250V, Interference suppressor	F5
C155	·01μF, 10%, 250V, Interference suppressor	F5
C156	·01μF, 10%, 250V, Interference suppressor	F5
C157	470μF, Elec., 25V, W24 supply reservoir, 00E0-229-B7	J3
C158	0·1μF, 10%, 250V AC, Mains interference suppressor	K4
C159	5000pF, 25%, 50V, Thyristor input RF decoupling	E4,5; G4,5
C160	·022μF, 20%, 250V, Interference suppressor	B5,6
C161	470pF, 20%, 500V, VT29 stabilizing	D4; F4
C162	2·2pF, ±½pF, 500V, VT7 stabilizing	CD2

The tuning gang value quoted is the swing capacitance.

RESISTORS

REF	DESCRIPTION AND PART NO.	LOC
R1	100kΩ, Variable, Pot. tuning control } Part tuning	C2
R2	6·18kΩ, Preset, Part tuning } gang assembly	C2
R3	10kΩ, 10%, 0·2W, Part tuning voltage decoupling	B4
R4	100kΩ, 10%, 0·2W, Part VT1 gate pot. divider	B4
R5	100kΩ, 10%, 0·2W, Part VT1 gate pot. divider	B4
R6	100kΩ, 10%, 0·2W, VT1 bias feed	B4
R7	100kΩ, 10%, 0·2W, W1 tuning voltage feed	B4
R8	1kΩ, 10%, 0·2W, VT1 source stabilizing	B4
R9	330Ω, 10%, 0·2W, L5 damping	B4

Resistors—continued

REF	DESCRIPTION AND PART NO.	LOC
R10	68kΩ, 10%, 0·2W, Part VT2 gate pot. divider ...	C4
R11	180kΩ, 10%, 0·2W, Part VT2 gate pot. divider ...	C4
R12	100kΩ, 10%, 0·2W, W2 tuning voltage feed ...	C4
R13	4·7kΩ, 10%, 0·2W, Part VT3 base bias pot. ...	C4,5
R14	15kΩ, 10%, 0·2W, Part VT3 base bias pot. ...	C4
R15	1kΩ, 10%, 0·2W, VT2 source stabilizing	BC4
R16	2·2kΩ, 10%, 0·2W, VT3 emitter stabilizing ...	C4
R17	6·8kΩ, 10%, 0·2W, Part VT4 base bias pot. ...	C4,5
R18	22kΩ, 10%, 0·2W, Part VT4 base bias pot. ...	C4
R19	2·7kΩ, 10%, 0·2W, VT4 emitter stabilizing ...	C4,5
R20	68Ω, 10%, 0·2W, VT4 RF stopper	C4,5
R21	1kΩ, 10%, 0·2W, VT4 collector feed	B4,5
R22	4·7kΩ, 10%, 0·2W, L12 damping	C4
R23	100kΩ, 10%, 0·2W, W3 tuning voltage feed ...	C4
R24	100kΩ, 10%, 0·2W, FM oscillator AFC feed ...	C4
R25	150Ω, 10%, 0·2W, L14 damping	C3
R26	2·7kΩ, 10%, 0·2W, Modulation hum suppressor ...	C1,2
R27	2·2MΩ, 10%, 0·2W, VT7 gate bias feed	C2,3
R28	120kΩ, 10%, 0·2W, VT5 AGC limiter	C2,3
R29	1kΩ, 10%, 0·2W, VT5 RF stopper	C3
R30	100Ω, 10%, 0·2W, VT5 RF stopper	C3
R31	6·8kΩ, 10%, 0·2W, VT5 source stabilizing ...	CD3
R32	330Ω, 10%, 0·2W, VT5 supply dropper and decoupling	CD3
R33	680kΩ, 5%, ¼W, Part VT6 gate bias AGC delay pot.	D3
R34	1·5MΩ, 5%, ¼W, Part VT6 gate bias AGC delay pot.	D2,3
R35	180Ω, 10%, 0·2W, Part VT7 base bias pot. ...	D2
R36	820Ω, 10%, 0·2W, Part VT7 base bias pot. ...	D2
R37	1kΩ, 10%, 0·2W, VT7 emitter stabilizing... ...	D2
R38	10Ω, 10%, 0·2W, RF stopper	D2
R39	100Ω, 10%, 0·2W, RF stopper	CD2
R40	100kΩ, 10%, 0·2W, MW oscillator damping ...	D2
R41	47Ω, 10%, 0·2W, Supply decoupling	D2,3
R42	5·6kΩ, 10%, 0·2W, VT8 current stabilizing ...	D3,4
R43	5·6kΩ, 10%, 0·2W, FM IFT1, Terminating resistor	CD3
R44	150kΩ, 10%, 0·2W, VT8 bias feed	D3
R45	330Ω, 5%, 0·2W, VT8 collector load	D3
R46	100Ω, 10%, 0·2W, VT8 emitter feedback ...	D3
R47	100Ω, 10%, ¼W, VT9-VT11 supply dropper and decoupling	E3
R48	330Ω, 10%, 0·2W, AM FM IF matrix	D3
R49	10kΩ, 10%, 0·2W, VT9 bias feed	DE3
R50	2·7kΩ, 10%, 0·2W, VT9 AGC emitter feedback ...	DE3
R51	3·3kΩ, 10%, 0·2W, AGC amplifier load	E3
R52	2·2kΩ, 5%, ¼W, VT9 collector load	E3
R53	100kΩ, 10%, 0·2W, IF AGC limiter	E3
R54	3·3kΩ, 10%, 0·2W, VT10 emitter stabilizing ...	E3
R55	1kΩ, 5%, 0·2W, VT11 collector load	E3
R56	150Ω, 5%, 0·2W, Part VT11 emitter stabilizing ...	E3
R57	220Ω, 5%, 0·2W, VT9 base bias and part VT11 emitter stabilizing	E3,4
R58	22kΩ, 10%, 0·2W, Part detector output IF filter ...	D2
R59	10kΩ, 10%, 0·2W, AM detector load	E3
R60	4·7kΩ, 10%, 0·2W, Part AM IF filter	EF3
R61	27kΩ, 10%, 0·2W, AM AGC amplifier feed ...	E3
R62	1MΩ, 10%, 0·2W, AM detector bias	E3
R63	1kΩ, 10%, 0·2W, Tuning meter series	E3
R64	100Ω, 10%, 0·2W, VT12 emitter load	E3
R65	27kΩ, 10%, 0·2W, Part VT13 base bias pot. ...	D2,3
R66	100Ω, 10%, 0·2W, VT13 RF stopper	D3
R67	100kΩ, 5%, 0·2W, Part VT13 base bias pot. ...	D2
R68	22kΩ, Preset, Muting level adjustment, 00E1-055-522	C3
R69	10Ω, 10%, 0·2W, IC1 decoupling	F3
R70	100Ω, 10%, 0·2W, Ratio detector tertiary series ...	F3
R71	470kΩ, 10%, 0·2W, AFC voltage feed	G3
R72	680Ω, 10%, 0·2W, Part ratio detector diode load ...	FG3
R73	680Ω, 10%, 0·2W, Part ratio detector diode load ...	F3
R74	100kΩ, 5%, 0·2W, Ratio detector bias feed ...	F3
R75	100kΩ, 5%, 0·2W, Ratio detector bias feed ...	G3
R76	2·7kΩ, 5%, ¼W, Part ratio detector diode load ...	G3
R77	2·7kΩ, 5%, ¼W, Part ratio detector diode load ...	G3
R78	22kΩ, Preset, MPX difference signal level (separation), 00E1-055-522	FG4
R79	22kΩ, 5%, 0·2W, VT14 signal load	G3
R80	100kΩ, 10%, 0·2W, VT14 base current return ...	G3
R81	4·7kΩ, 10%, 0·2W, VT14 emitter load	G3
R82	22kΩ, 5%, 0·2W, VT14 emitter stabilizing ...	GH3
R83	2·2kΩ, 10%, 0·2W, Part HF compensation ...	G3
R84	270kΩ, 10%, 0·2W, Mute override	D1,2
R85	12kΩ, 10%, 0·2W, VT15 emitter current feed ...	GH3
R86	56Ω, 10%, 0·2W, Part 19 kHz phase correction ...	GH3
R87	22kΩ, 10%, 0·2W, VT17-VT18 bias	H3
R88	8·2kΩ, 5%, ¼W, VT16 emitter load	H3
R89	10kΩ, 10%, 0·2W, VT17-VT18 collector current limiting	H3
R90	270Ω, 10%, 1W, Stereo lamp series limiter ...	H3
R91	820kΩ, 10%, 0·2W, W12, W15 bias feed ...	HJ3
R92	820kΩ, 10%, 0·2W, W13, W14 bias feed	J3
R93	470kΩ, 10%, 0·2W, Detector output 'earth' return	J3
R94	47kΩ, 10%, 0·2W, Part de-emphasis	J3
R95	470kΩ, 10%, 0·2W, Detector output 'earth' return	J3
R96	47kΩ, 10%, 0·2W, Part de-emphasis	J3
R97	680kΩ, 10%, 0·2W, Part ceramic pickup auxiliary load	D2; D2
R98	56kΩ, 10%, 0·2W, Magnetic pickup load ...	E2; DE2
R99	1MΩ, 10%, 0·2W, IC2 bias return	E2; E2
R100	1·5kΩ, 5%, 0·2W, Magnetic pickup NFB equalizing load	E2; E2
R101	100Ω, 10%, 0·2W, CF2 buffer	D3
R102	10Ω, 10%, 0·2W, Part IC2 stability correction ...	E2; E2,3
R103	1MΩ, 10%, 0·2W, IC2 bias feed	E2; DE3
R104	100kΩ, 10%, 0·2W, Part magnetic pickup equalizing	E2; DE2
R105	39kΩ, 10%, 0·2W, Radio and AUX NFB ...	E2; D2
R106	820kΩ, 10%, 0·2W, Tape recorder current feed ...	E2; EF3
R107	100kΩ, 10%, 0·2W, VT20 base return	EF2; EF2
R108	100Ω, 10%, 0·2W, VT20 collector stopper ...	EF2; F2
R109	6·8kΩ, 10%, 0·2W, VT20 emitter load	F2; F2
R110	39kΩ, 10%, 0·2W, Part contour correction network	F2; F1,2
R111	10kΩ, 10%, 0·2W, Part contour correction network	F2; F1
R112	5·6kΩ, 10%, 0·2W, Volume control stand-off ...	F2; F1,2
R113	100kΩ, Tapped lin. pot., Volume control, 03E1-098-5	F2; F1
R114	2·7kΩ, 10%, 0·2W, IC3 bias return	F2; F2
R115	10Ω, 10%, 0·2W, Part IC3 stability correction ...	F2,3; FG2

Resistors—continued

REF	DESCRIPTION AND PART NO.	LOC
R116	3·9kΩ, 10%, 0·2W, Part balance control network ...	G2,3; FG2
R117	8·2kΩ, 10%, 0·2W, Part bass control network ...	G2; G1
R118	100kΩ, Log. pot., Bass control, 03E1-089-6 ...	G2; G1,2
R119	1kΩ, 10%, 0·2W, Part bass control network ...	GH2; H1
R120	4·7kΩ, 10%, 0·2W, Tone controls isolating ...	GH2; H2
R121	47kΩ, Lin. pot., Balance control, 03E1-089-4 ...	H2
R122	180Ω, 10%, 0·2W, VT21-VT22 supply decoupling ...	G3
R123	100kΩ, 10%, 0·2W, Part treble control network ...	G2; FG1
R124	1·5kΩ, 10%, 0·2W, Tone controls isolating ...	G2; H2
R125	100kΩ, Log. pot., Treble control, 03E1-089-6 ...	G2; G1,2
R126	220kΩ, 10%, 0·2W, VT21 bias return and part rumble filter	H2; HJ2
R127	47kΩ, 10%, 0·2W, VT21 bias return and part rumble filter	H2; H1,2
R128	18kΩ, 10%, ¼W, VT21 emitter current feed ...	H2,3; H2
R129	1·2kΩ, 5%, 0·2W, VT21 emitter feedback load ...	H2; H2
R130	6·8kΩ, 5%, 0·2W, VT22-VT21 negative feedback ...	H2,3; HJ2
R131	12kΩ, 10%, 0·2W, VT21 collector load	H2; H2
R132	10kΩ, 10%, 0·2W, Part rumble filter network ...	J2; J2
R133	4·7kΩ, 5%, 0·2W, VT22 collector load	HJ2; H2
R134	820Ω, 10%, 0·2W, Part scratch filter network ...	HJ2; J2
R135	1MΩ, 10%, 0·2W, S5A noise suppressor ...	H2; J2
R136	1·2kΩ, 10%, 0·2W, VT23 base stopper	E4; GH4
R137	47kΩ, 5%, 0·2W, VT23 bias return	E4; H4
R138	15Ω, 10%, 0·2W, Inter-channel output current isolating	EF4; F4
R139	4·7kΩ, 5%, 0·2W, VT23 collector load	E4; H4
R140	2·2kΩ, 5%, 0·2W, VT25 emitter stabilizing ...	D4; FG4
R141	12kΩ, 5%, 0·2W, VT24 collector current limiter ...	E4; GH4
R142	2·2kΩ, 5%, 0·2W, NFB load	D4; G4
R143	47kΩ, 5%, 0·2W, NFB and VT24 bias	DE4; G4
R144	4·7kΩ, 5%, 0·2W, Part NFB HF compensation ...	E4; G4
R145	12kΩ, 10%, 0·2W, VT25 and VT30 bias feed ...	D4; G4
R146	1·2kΩ, 10%, 0·2W, VT27 collector load	E4; GH4
R147	22Ω, 10%, 0·2W, Driver current overload sensing ...	E5; H5
R148	82Ω, 10%, 0·2W, RF stopper	E4; GH4
R149	2·2kΩ, Preset, Quiescent current control, 00E1-055-422	CD6; G6
R150	330Ω, 5%, 0·2W, Part quiescent current bias network	D5; G5
R151	330Ω, 5%, 0·2W, Part quiescent current bias network	D5; G5
R152	47Ω, 10%, 0·2W, Part constant current feed network	D4; F4
R153	1·8kΩ, 5%, 0·2W, Part thyristor (VT32) hold-off bias	E4; G4
R154	1·8kΩ, 5%, 0·2W, Part thyristor (VT35) hold-off bias	D4; G4
R155	820Ω, 5%, 0·2W, Part thyristor firing level pot. divider	DE4; G4
R156	15Ω, 10%, 0·2W, Part output stabilizing network ...	DE5; G5
R157	180Ω, 5%, 0·2W, VT36 collector load	D5; F5
R158	3·3kΩ, 5%, 0·2W, Part thyristor firing level pot. divider	E5; G5
R159	3·3kΩ, 5%, 0·2W, Part thyristor firing level pot. divider	D4; G4
R160	180Ω, 5%, 0·2W, VT37 collector load	E5; H5
R161	0·47Ω, 10%, 3W, VT38 output current limiter ...	E5; G5
R162	330Ω, 10%, 1W, Part headphone matching ...	D5; G5
R163	0·47Ω, 10%, 3W, VT39 output current limiter ...	DE5; G5
R164	330Ω, 10%, 0·2W, Part headphone matching ...	D4,5; G4,5
R165	22kΩ, Preset, FM tuning diode voltage control, 00E1-055-522	J4
R166	1·2kΩ, 10%, 0·2W, Part W16 zener current feed and decoupling	J3
R167	1·2kΩ, 10%, 0·2W, Part W17 zener current feed and decoupling	J2,3
R168	56Ω, 10%, 0·2W, VT40 collector current limiting ...	K3
R169	56Ω, 10%, 0·2W, VT41 collector current limiting ...	K3
R170	2·2kΩ, 10%, 0·2W, Part W16 zener current feed and decoupling	K3
R171	2·2kΩ, 10%, 0·2W, Part W17 zener current feed and decoupling	K2,3
R172	2·7kΩ, 10%, 0·2W, IC4 current feed	J3
R173	47Ω, 10%, 0·2W, W24 peak current limiter ...	J3
R174	330Ω, 10%, 0·2W, VT30 base current limiter ...	D4; E4
R175	68kΩ, 10%, 0·2W, Part thyristor (VT32) hold-off bias	E4; G4,5
R176	68kΩ, 10%, 0·2W, Part thyristor (VT35) hold-off bias	D4; FG4
R177	1kΩ, 10%, 0·2W, VT20 RF stopper	E2; EF2
R178	1MΩ, 10%, 0·2W, AM detector 'earth' return ...	D2
R179	10kΩ, 5%, 0·2W, Diode switch (W25, W26) current feed	D1
R180*	10Ω, 10%, 0·2W, VT3 RF stopper	C4

**In some models only. Not shown in Component Locations diagram.*

INTEGRATED CIRCUITS AND CERAMIC FILTERS

REF	DESCRIPTION AND PART NO.	LOC
IC1	IF amplifier and limiter, 00V3-100	F3
IC2	Audio equalizer and preamplifier, 00V3-102	E2
IC3	Audio preamplifier and gain control, 00V3-102 ...	F2
IC4	20V supply line stabilizing, 00V3-121	JK3
CF1	Ceramic filter, 460 kHz, 03E5-010	D3
CF2	Ceramic filter, 10·7 MHz, 03E5-009	D3
CF3	Ceramic filter, 10·7 MHz, 03E5-009	D3

MURATA SFE 10.7 MA

continued overleaf

Component Details—continued

INDUCTORS AND TRANSFORMERS

REF	DESCRIPTION AND PART NO.	LOC
L1-L2	FM aerial transformer, 03D1-315	A4
L3	Neutralizing coil (2·5μH), 03D0-095	B4
L4	RF choke, 03D8-003	BC4
L5-L6	Broadband RF transformer, 03D1-304	B4
L7	RF choke, 03D8-003	C4
L8	FM RF amp. tuning coil, 03D1-303	C3
L9	Part 10·7 MHz rejector, 03D0-002	C4
L10	FM IFT1 primary, 03D0-080	C5
L11	FM IFT1 secondary, 03D0-080	B5
L12	FM oscillator coil, 03D1-317	CD4
L13	FM RF choke, 03D8-003	BC5
L14-L15	SW aerial transformer, 03D1-301	B3
L16	SW image rejector, 03D1-311	B2
L17	AM aerial coupling	A3
L18	MW tuning coil } Ferrite rod aerial, 03M3-662	A2
L19	LW tuning coil	A5
L20-L21	AM IFT1, 03D0-038	D4
L22-L24	MW/LW oscillator coils, 03D1-302	CD1
L25-L27	SW oscillator coils, 03D1-071	C1
L28	IC1 input tuning, 03D0-092	F3
L29-L30	Ratio detector primary, 03D0-089	E4
L31-L32	Ratio detector secondary, 03D0-078	F4
L33	114 kHz rejector coil, 03D0-082	G3
L34-L35	19 kHz tuning coils, 03D0-084	GH4
L36-L37	Frequency doubler coils, 03D0-084	H4
L38-L39	38 kHz tuned transformer, 03D0-084	HJ4
L40	9 kHz scratch filter, 03D0-082	K2; K2
T1	Mains transformer, 03D3-035	J5

The manufacturers reserve the right to vary specifications or use alternative materials as may be deemed necessary or desirable at any time.

MISCELLANEOUS

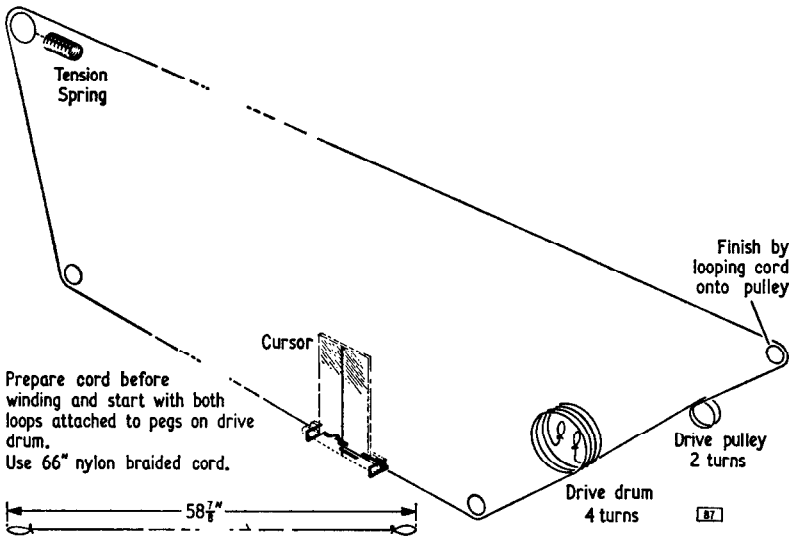
REF	DESCRIPTION AND PART NO.	LOC
F1-F2	Fuse, 2·5AT, anti-surge, 08E6-004-16	J4‡; J4
	Fuseholder, 08M2-022-9†	—
F3-F4	Fuse, 315mAT, anti-surge, 08E6-004-10	K3
	Fuseholder, 08M2-053-002	—
F5	Fuse, 1AT, anti-surge, 08E6-004-7	H4‡
	Fuseholder, 03B4-410**	—
F6	Fuse 315mAT, anti-surge, 08E6-004-10	HJ4
	Fuseholder, 08M2-053-002	—
J1	Headphone socket, 03F6-140	K3
J2	Headphone socket, 03F6-140	K2
M1	Tuning meter, 03F9-006	C1
PL1	Stereo lamp (LES), 14V, 0·56W, 03E6-049	J1
	Lampholder, 03F6-082	—
PL2	Scale lamp (MES) 12V, 0·1A, 03E6-065	H1
PL3		F1
PL4		E1
	Lampholder, 03F6-059	—
PL5	Meter lamp (LES), 14V, 0·56W, 03E6-049	D1
	Lampholder, 03F6-082	—
S1-S6	Push-button switch, (6-way), 03E2-091-4	J1-K1
S7-S16	Push-button switch, (10-way), 03E2-091-3	E1-C1
S17	AFC switch, 03E2-016-002	B1
	Screw, SA04TP12 (washer, WSPB06)	—
S18	Slide switch, 03E2-094	C5
SKT1	FM aerial socket, 03F6-111	B5
SKT2	FM aerial coaxial socket, 03F6-251	B5
SKT3	AM aerial socket, 03F6-149	C5
SKT4	Auxiliary socket, 03F6-259	C6
SKT5	Magnetic pickup socket, 03F6-259	BC6
SKT6	Tape socket, 03F6-259	B6
SKT7	Loudspeaker socket (LH), 03F6-258	H6; H6
SKT8	Loudspeaker socket (RH), 03F6-258	H5; H5
SKT9	Mains outlet socket, 03F6-144	K5,6
	Screw, SBO4TP06N (nut, NFHB04)	—
	Shakeproof washer, WSPB04	—
	Fibre washer, 03L6-119	—
	Insulator, 03B4-414	—

†In some early receivers using 5A fuses, fuseholder part No. becomes 03F6-114.

***In some early receivers fuseholder part No. becomes 03F6-150.*

‡In some models fuses F1 & F2 (5 amp.) are fitted in location F4 on the power amplifier board and F5 is in location K4.

DRIVE CORD ARRANGEMENT

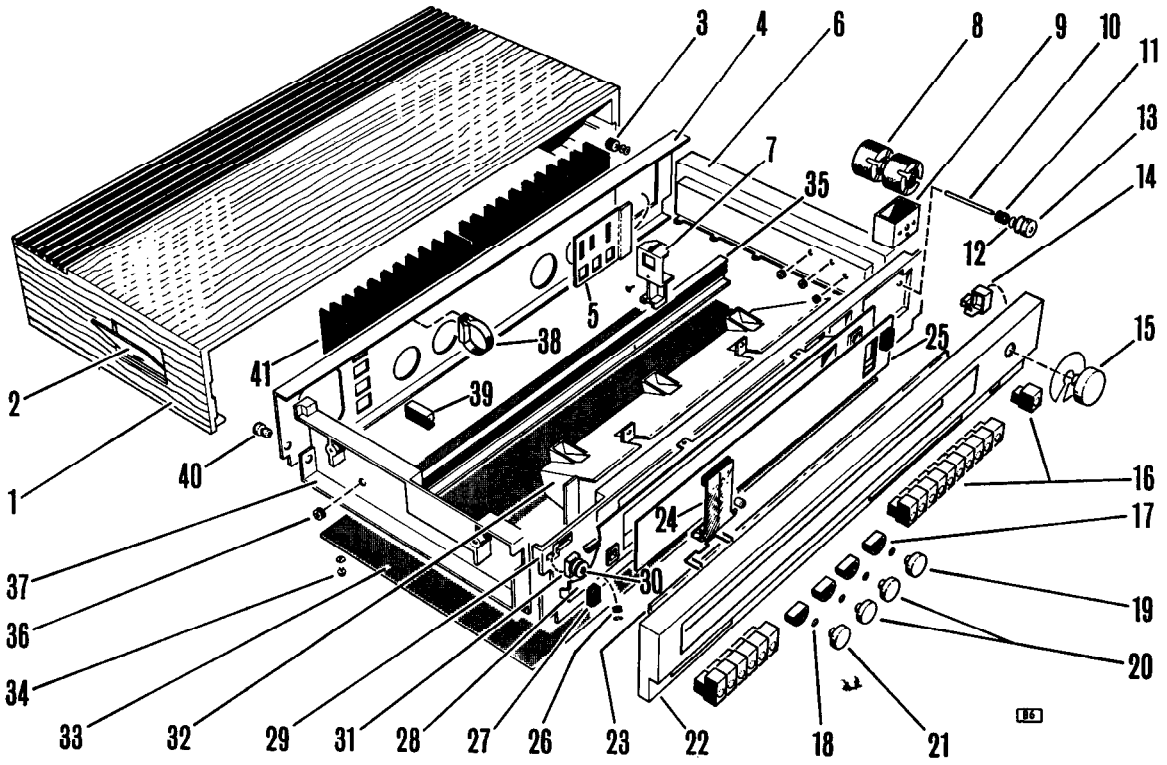


GRID REFERENCES FOR TAG LOCATIONS

1	...	C3	22	...	F4
2	...	C3	23	...	F4
3	...	C3	24	...	EF5
4	...	C3	25	...	F4,5
5	...	D3,4	26	...	EF5, F5
6	...	E2	27	...	E3
7	...	F2	28	...	E3
8	...	CD3	29	...	D4, F4
9	...	J3	30	...	E5, H5
10	...	J3	31	...	E5, G5
11	...	J3	32	...	E4, H4
12	...	J3	33	...	E4, H4
13	...	K2	34	...	G2,3
14	...	J2	35	...	E3
15	...	J2			
16	...	J2	A	...	B5
17	...	J3	B	...	B5
18	...	J3,4	C	...	B4
19	...	JK3	D	...	B4
20	...	K3,4	E	...	B4
21	...	K3,4	F	...	B4

REPLACEMENT PARTS

When ordering replacement components, please quote Model number and include the description or function given with the part number. Part numbers for variable resistors, electrolytics, coils and other specialised components are given under Component Details.



Cabinet Assembly

(1)	Cabinet—Teak	03A0-276-001
	—Rosewood	03A0-276-002
	—Walnut	03A0-276-003
	—Ivory white	03A0-276-004
(2)	Headphone door—wood-grained cabinet	03C8-145-002
	—ivory white cabinet	03C8-145-001
	Headphone door hinge (all models)	03C8-258
	Screw for door hinge	SA04TP04
(3)	Earth terminal	03L1-004
	Screw	SB04HH08
	Shakeproof washer	WSPB04
	Nut (washer, WPLB04)	NFHB04
(4)	Chassis back panel—One-Ten; One-Ten I	03A7-860
	—One-Ten H; One-Ten HI	03A7-860-002
	—One-Ten S; One-Ten SI	03A7-860-001
	Screw, Nut, Shakeproof washer (securing back panel to chassis end)	SB04TP05N, NFHB04, WSPB04
(5)	Socket panel	03B1-362
(6)	End panel—RH	03C5-016
(7)	FM tuner support bracket	03C8-149
	Screw securing bracket to tuner	SA06TP04
(8)	Flywheel (2 off)	03C5-010
	Grub screw	SB06AP02
(9)	Flywheel frame	03C8-135
	Screw, securing frame to chassis front	SZ06TP04
	Screw, securing frame to end panel	SZ06TP06
(10)	Flywheel spindle	03B3-144
(11)	Fibre washer	03L6-123
(12)	Circlip	03L3-126
(13)	Drive pulley	03B3-153
	Grub screw	SB06AP02
(14)	Escutcheon mounting block	03C8-146
	Screw	SA06TP06
(15)	Tuning knob—wood-grained cabinet	03C0-266-002
	—ivory white cabinet	03C0-266-001
	Clip	03L3-114
	Finger guard	03A3-008-7
(16)	Push-button—VHF-green (Ivory white models only)	03C0-267-001
	—LW-mauve	03C0-267-002
	—MW-yellow	03C0-267-003
	—SW-orange	03C0-267-004
	—OFF-red	03C0-267-005
	—All others-white	03C0-267-006
	—grey (wood-grained cabinet models)	03C0-267-007
(17)	Control knob spacer	03C0-268-002
(18)	Inner spacer	03B4-408
(19)	Volume knob	03C0-265-003
(20)	Treble or Bass knob	03C0-265-004
(21)	Balance knob	03C0-265-005
	Clip for knob	03L3-114
(22)	Front escutcheon assembly—One-Ten HI; One-Ten S; One-Ten I; One-Ten SI	03M3-655
	Screw—One-Ten HI	SNO6TP060
	—others	SN06TP06N
	Front escutcheon assembly—One-Ten; One-Ten H	03M3-655-001
	Screw	SA06TP06N
(23)	Escutcheon window	03A7-877
(24)	Cursor	03C8-251-001
	Pad, Pulley (if fitted)	03B4-425, 03B3-148
	Wire support	03B5-202
(25)	Tuning scale	03A7-859
(26)	Drive cord pulley—black	03C8-006
	Circlip	03L3-039
(27)	Escutcheon spacing rubber	03B4-047
(28)	Scale backing moulding	03C8-254
	Screw	SY06HP03
	Screw	SN06TP06
(29)	Chassis front rivetting assembly	03M3-671
	Screw, Nut, Washer (securing front panel to chassis end)	SB04TP05N, NFHB04, WSPB04
(30)	Nylon drive cord pulley	03C8-121
(31)	Nylon cord tension block	03C8-056
	Tension spring	03B5-208
(32)	Scale lamp reflector	03C8-255
	Screw	SZ06TP05N
(33)	Base cover	03A1-170
	Screw	SA08TP08N
(34)	Foot	03A8-003
(35)	Printed board support rail	03C2-011
(36)	Chassis end panel grommet	03C3-005
(37)	End panel—LH	03C5-017
	Mains lead cleat—One-Ten; One-Ten I; One-Ten S; One-Ten SI	00L4-023
	—One-Ten H; One-Ten HI	03B4-007
(38)	Capacitor clamp	03C8-259
	Screw	SA08TP08N
	Spire clip	03L4-069
(39)	Audio board support clip	03C2-012
(40)	Mains lead clamp	03L4-185
(41)	Heat sink	03B2-015
	Screw securing heat sink to back panel	SA06TP06N
	Screw securing transistor to heat sink	SA04TP06

Chassis Assembly

Mains lead assembly—Wood-grained models	03H1-013
—One-Ten H	03H1-009
—One-Ten S & One-Ten SI (mains plug 08F6-051)	03H1-014
Balance, Bass, Treble or Volume controls fixing plate	03B0-032
Rod aerial clamp	03L3-113
FM tuning pot. assembly cover—part tuning gang assembly	
FM tuner chassis box	03B2-026
Screw	SZ04TP04
FM tuner end plate assembly	03M3-448
Indoor FM aerial assembly	03M3-159
FM aerial plug only	03F6-118
Aerial lead separator only	03B0-034
AM aerial plug	03F6-148
Mains output lead assembly	03H1-012
Tuning gang mounting grommet	03C3-033
Special screw	03L6-106-001
Drive drum (clip 03L3-114)	03C8-148
Mains transformer mounting bracket	03B1-364
Cable clip	03B5-203