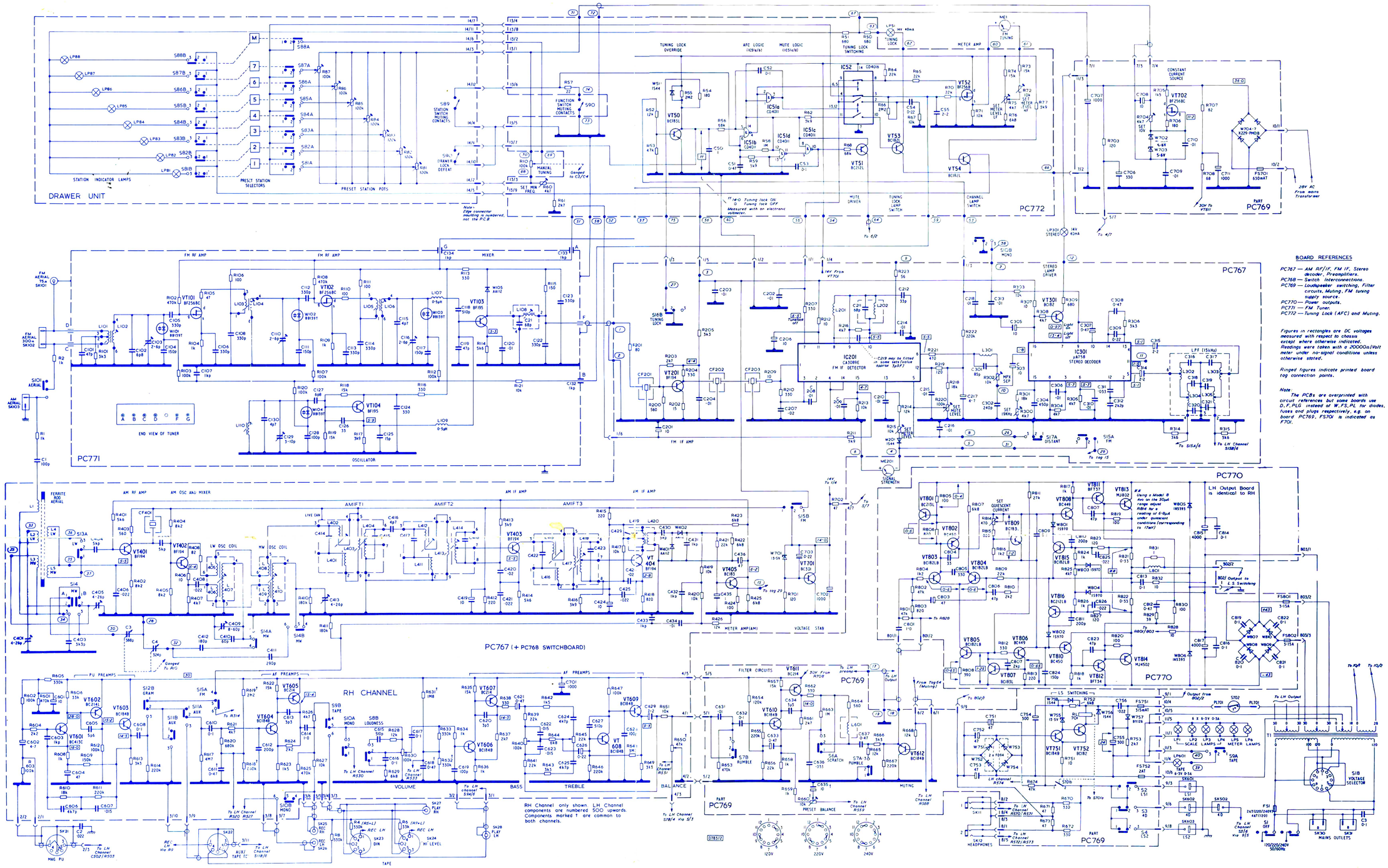
Model 150
Service Data

Goodmans

Goodmans Loudspeakers Limited
Downley Road Havant
Hampshire PO9 2NL England



BOARD REFERENCES

PC767 — AM RF/IF, FM IF, Stereo decoder, Preamplifiers.
PC768 — Switch interconnections.
PC769 — Loudspeaker switching, Filter circuits, Muting, FM tuning supply source.
PC770 — Power outputs.
PC771 — FM Tuner.
PC772 — Tuning Lock (AFC) and Muting.

Figures in rectangles are DC voltages measured with respect to chassis except where otherwise indicated. Readings were taken with a 20000Ω/Volt meter under no-signal conditions unless otherwise stated.

Ringed figures indicate printed board tag connection points.

Note:
The PCBs are overprinted with circuit references but some boards use D, F, PLG instead of W, FS, PL for diodes, fuses and plugs respectively, e.g. on board PC769, FS701 is indicated as F701.

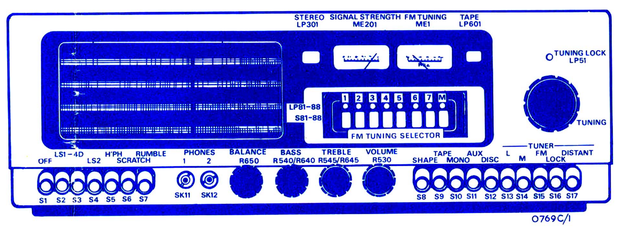
Truth Table for tuning lock and muting circuits

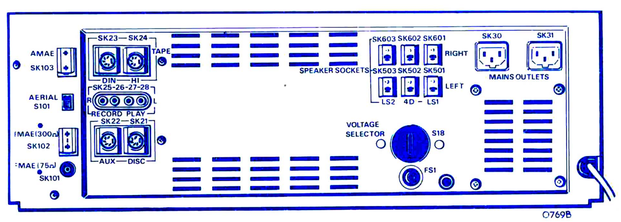
CONDITION		LOCK LAMP	AUDIO O/P STAGES	VOLTAGES ON IC51 PINS						VOLTAGES ON IC52 PINS						
				3	4	5*	6*	10	11	1	2*	3	4	8	10	11
Tuning lock button	IN	OFF	MUTED	0	14	14	0	0	14	6·5‡	T	T	T	6·5‡ (+P)	0	14
Tuner drawer	IN															
IF muting voltage**	ABSENT															
Switch muting†	ON															
Tuning lock button	IN	ON	OPERATIVE	14	0	14	14	14	0	T*	T	T*	P	6·5‡	0·6	0·6
Tuner drawer	IN															
IF muting voltage	ABSENT															
Switch muting	OFF															
Switch muting with Tuning lock button or Drawer unit or IF muting voltage	ON	OFF	MUTED	0	14	0	0	0	14	6·5‡	T	T	T (+P)	6·5‡ (+P)	0	14
	OUT															
	OUT															
	PRESENT															
Switch muting with Tuning lock button or Drawer unit or IF muting voltage	OFF	OFF	OPERATIVE	0	14	0	14	14	0	6·5‡	T	T	T (+P)	6·5‡ (+P)	0	14
	OUT															
	OUT															
	PRESENT															

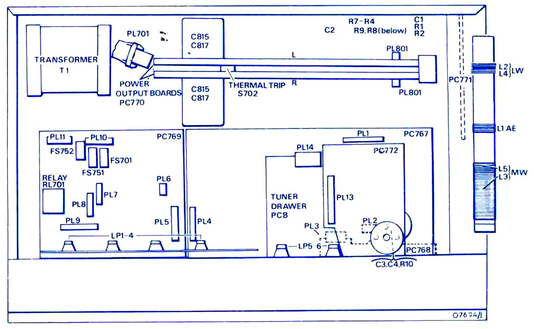
T = Tuning voltage on tag 59 i.e. 2·7 – 10V
P = Tuning pot. voltage at PL514
* Measure with a high impedance voltmeter (greater than 100MΩ)
** As IF muting voltage is present if no signal is in tune.

† This occurs momentarily on pressing a station selector switch or function switch, causing S89 or S90 to close, but the same effect can be produced by shorting tags 74 and 75 on PC772.
‡ No signal condition. This voltage will vary as sidebands are tuned.

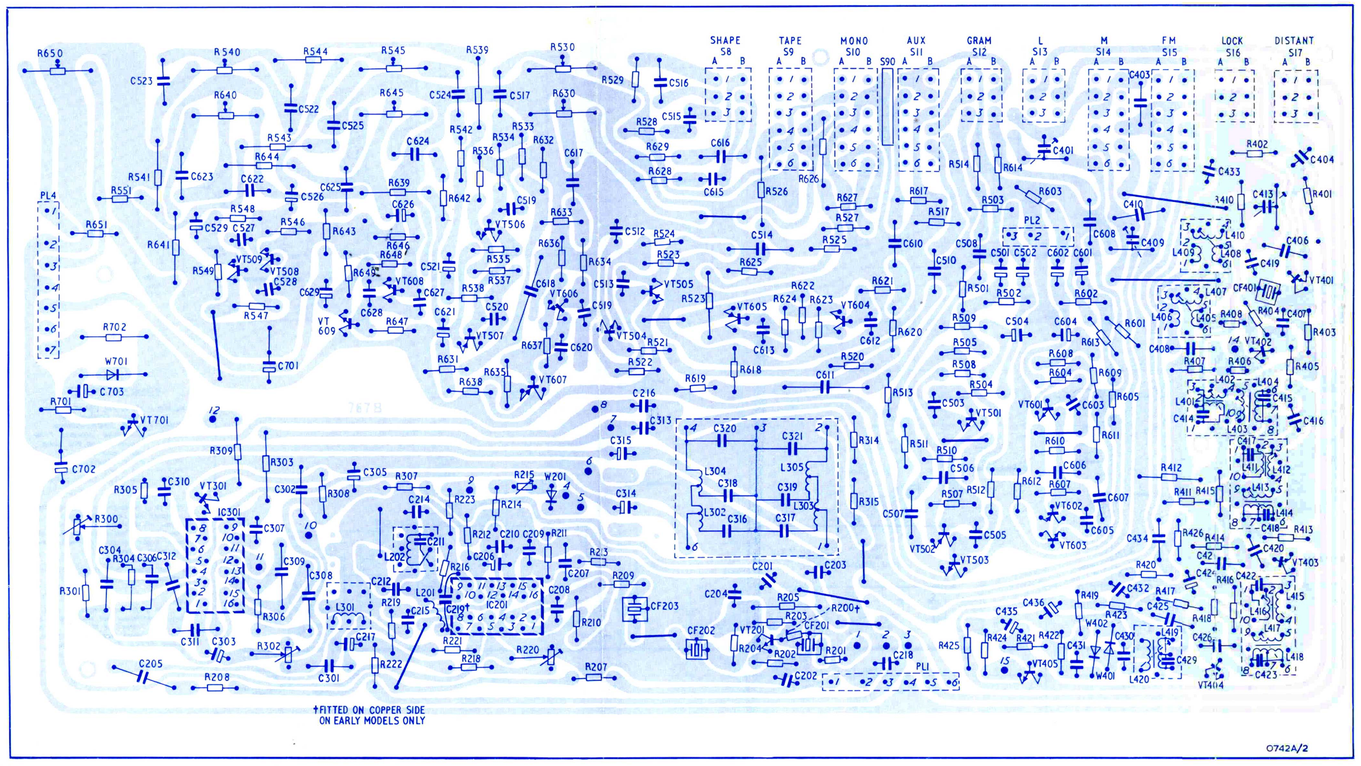
General Chassis Layouts





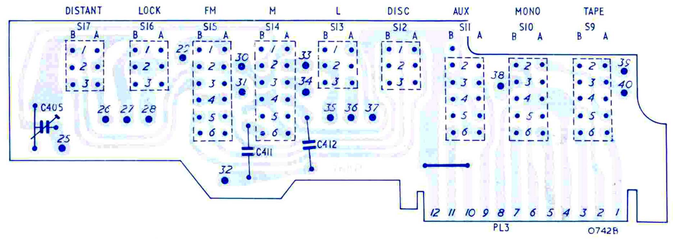


PC767

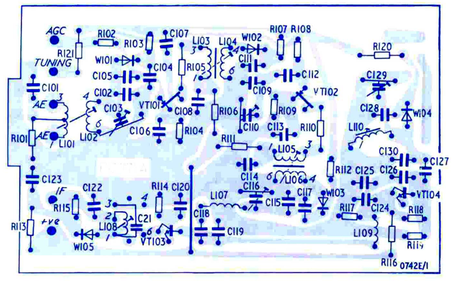


†FITTED ON COPPER SIDE ON EARLY MODELS ONLY

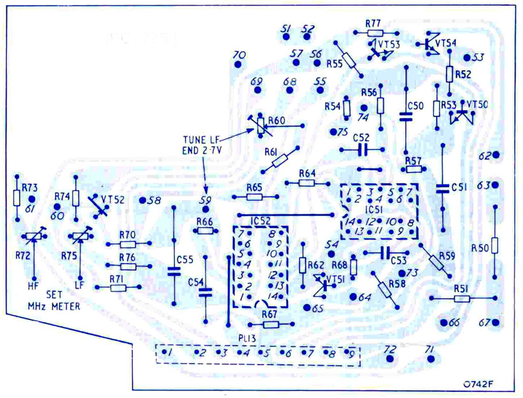
PC768



PC771

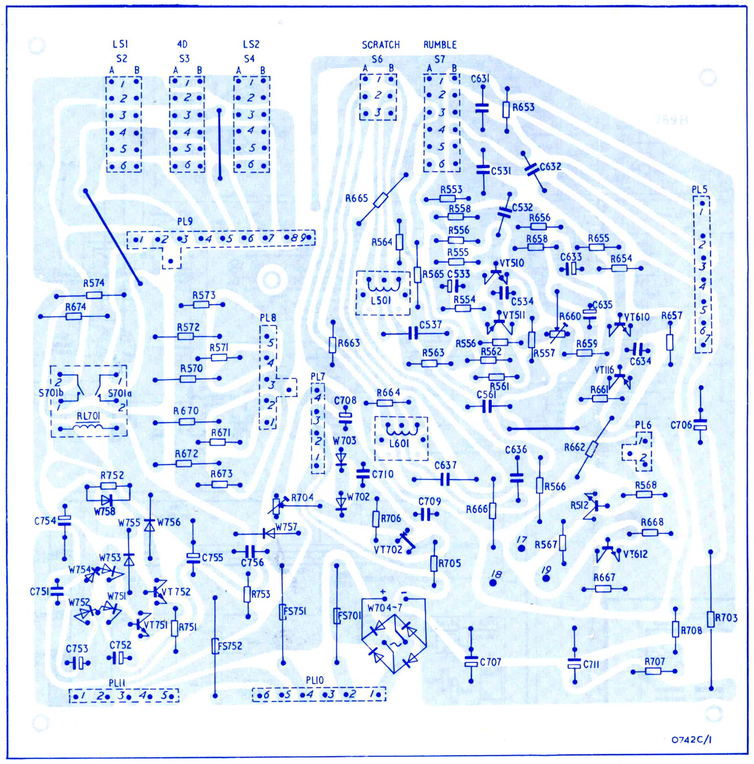


PC772



NOTE: Diode W51, in parallel with R55, is located on the copper side of the panel.

PC769

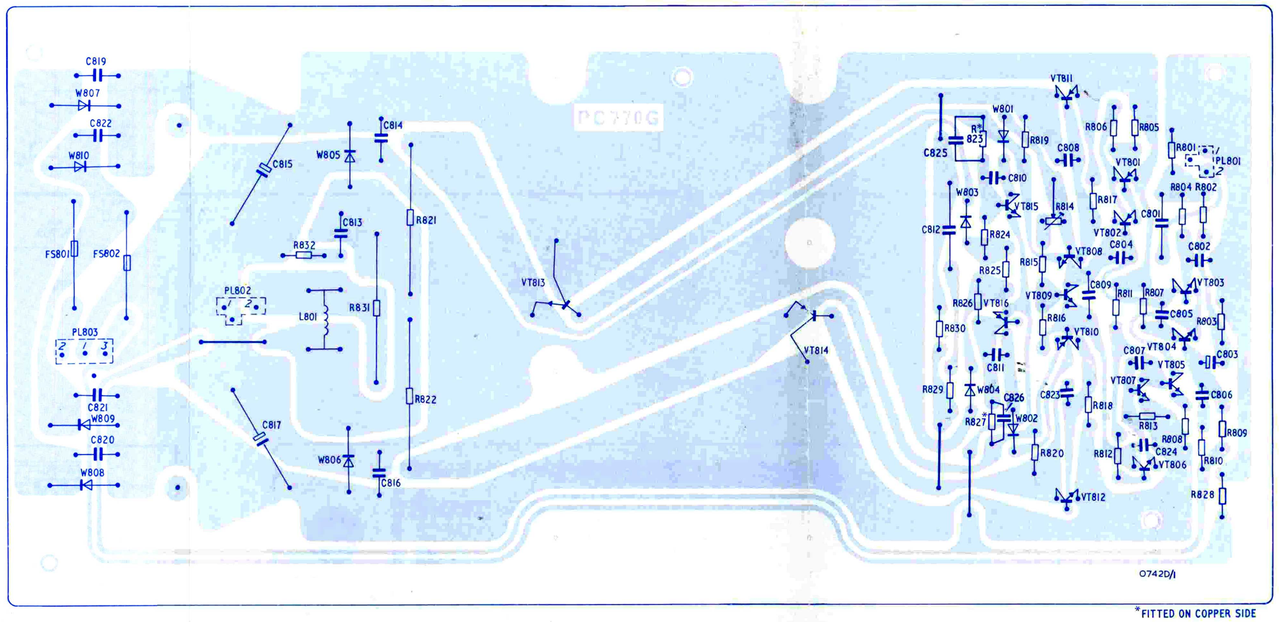


PCB COMPONENT LOCATIONS

(viewed through copper sides)

Note:
The PCBs are overprinted with circuit references but some boards use D, F, PLG instead of W, FS, PL for diodes, fuses and plugs respectively, e.g. on board PC769, FS701 is indicated as F701.

PC770



*FITTED ON COPPER SIDE

03P1-759