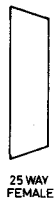
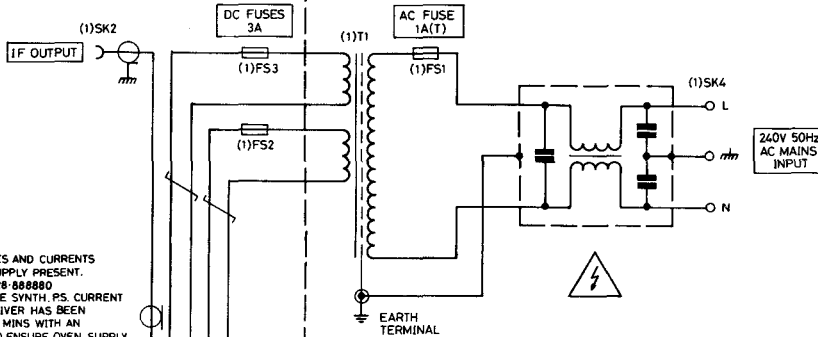


ANCILLARIES



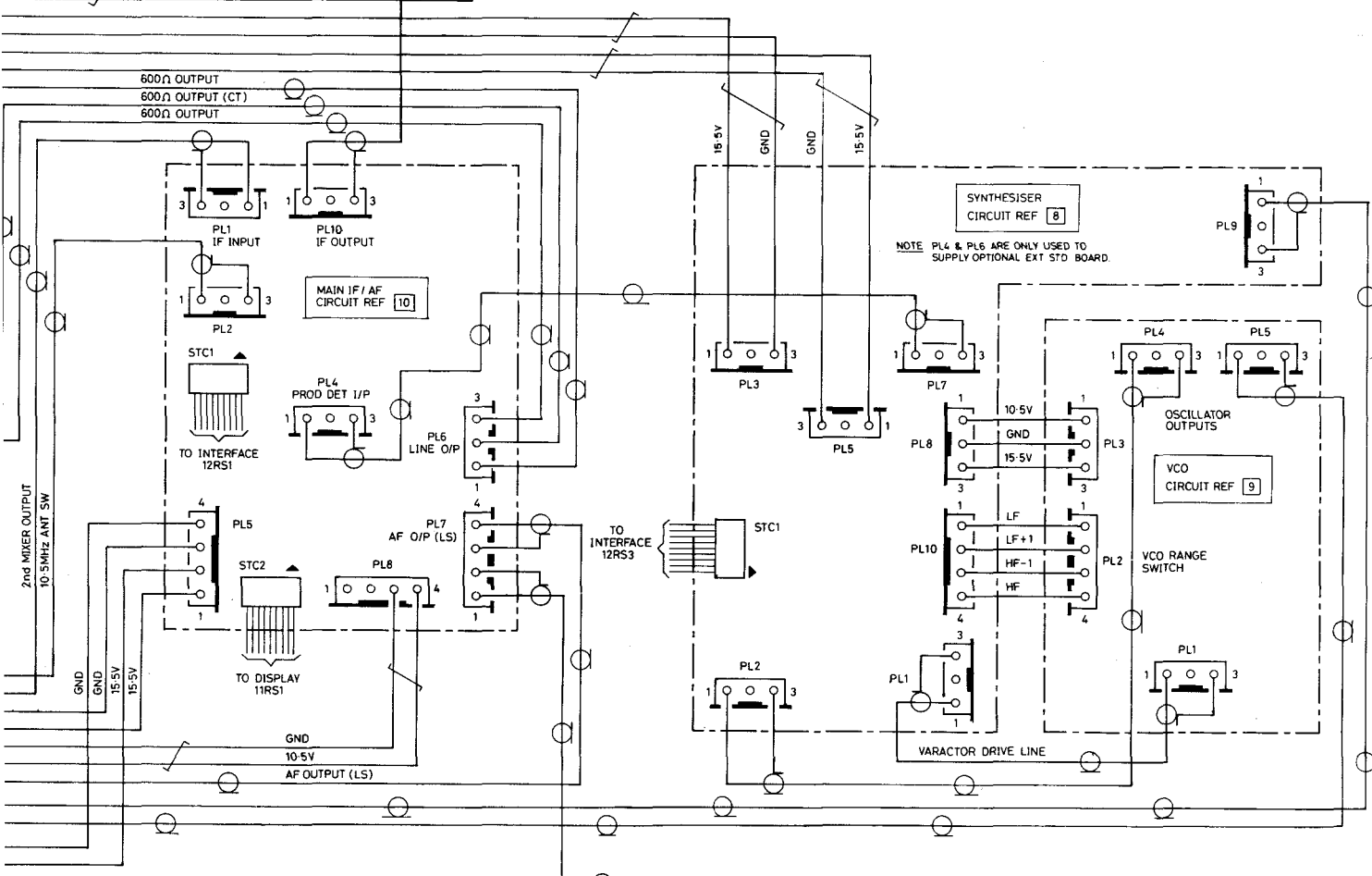
25 WAY FEMALE

NOTE POWER SUPPLY BOARD VOLTAGES AND CURRENTS ARE WITH THE RATED MAINS SUPPLY PRESENT. AUDIO OUTPUT 1WATT, DISPLAY 28-888880 AND 'WIDEBAND' SELECTED. THE SYNTH. PS. CURRENT IS MEASURED AFTER THE RECEIVER HAS BEEN SWITCHED ON FOR AT LEAST 15 MINS WITH AN AMBIENT TEMP ABOVE 10°C. (TO ENSURE OVEN SUPPLY CURRENT HAS STABILISED AT A SUITABLE POINT)

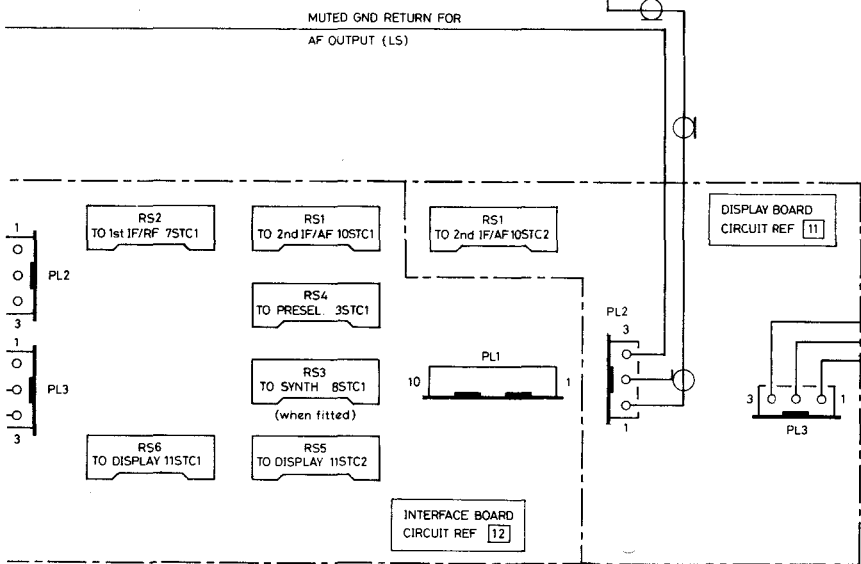


WARNING THE MAINS INPUT MUST BE REMOVED BEFORE PERFORMING THE FOLLOWING MEASUREMENT

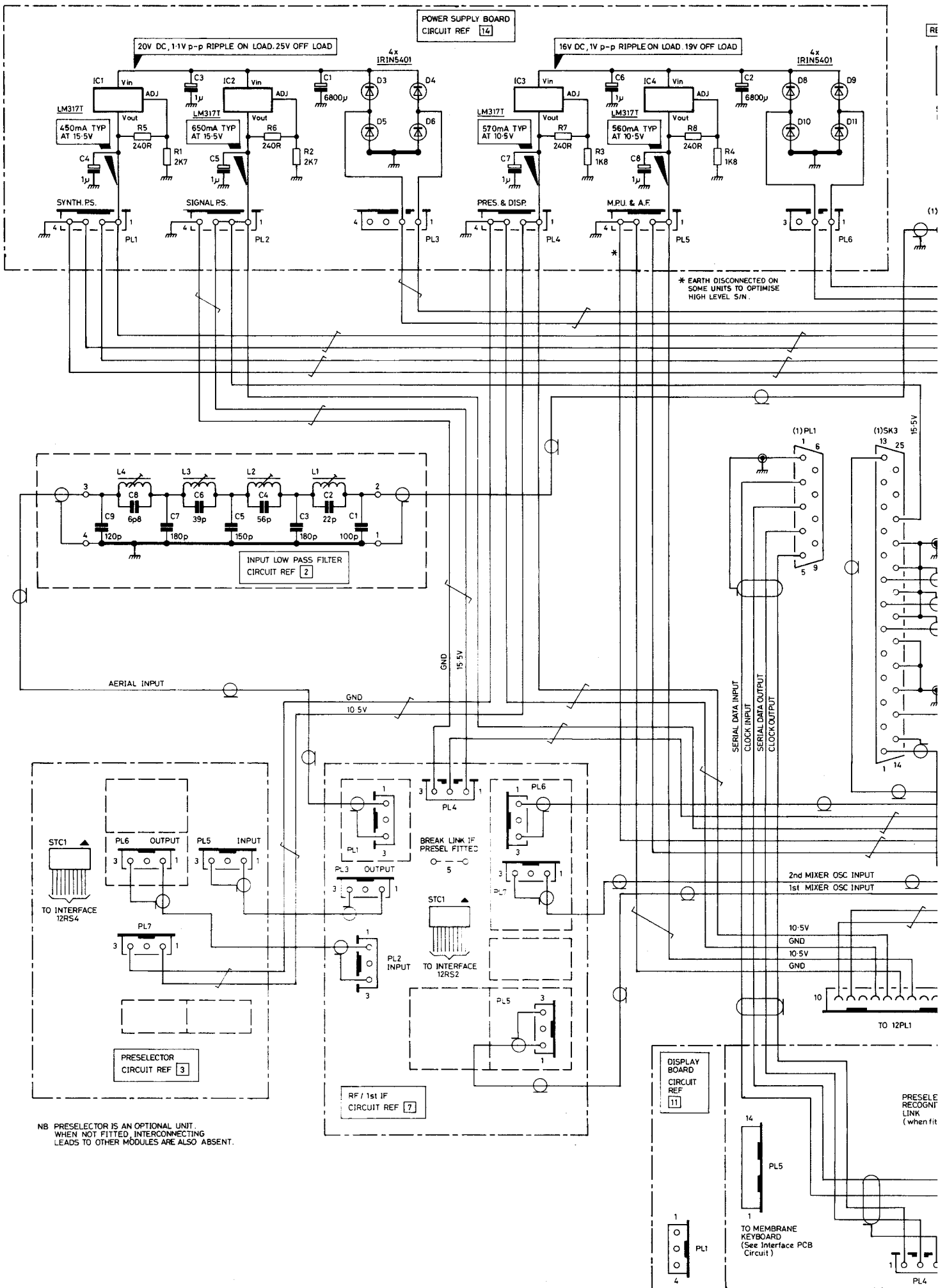
DC RESISTANCE BETWEEN SK5 L & N PINS
240V SETTING APPROX 31.5 Ω



1650/6 CHASSIS
INTERCONNECTIONS & MISC. MODULES
CIRCUIT REF 1



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NB PRESECTOR IS AN OPTIONAL UNIT. WHEN NOT FITTED, INTERCONNECTING LEADS TO OTHER MODULES ARE ALSO ABSENT.

* EARTH DISCONNECTED ON SOME UNITS TO OPTIMISE HIGH LEVEL S/N.

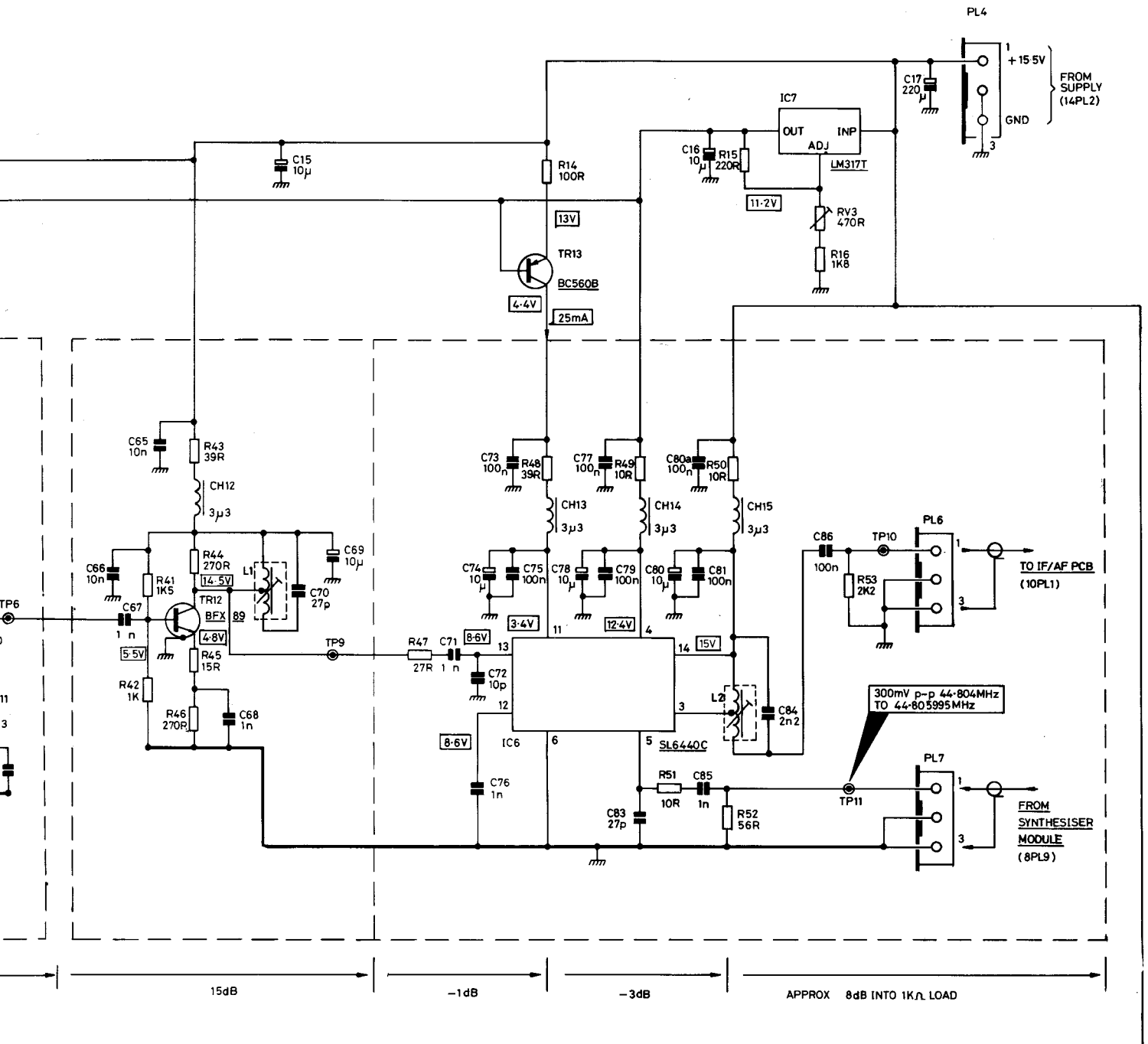
INPUT LOW PASS FILTER
CIRCUIT REF 2

PRESECTOR
CIRCUIT REF 3

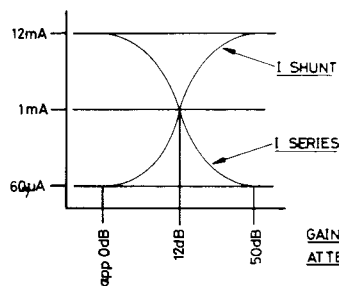
RF / 1st IF
CIRCUIT REF 7

DISPLAY BOARD
CIRCUIT REF 11

TO MEMBRANE KEYBOARD
(See Interface PCB Circuit)

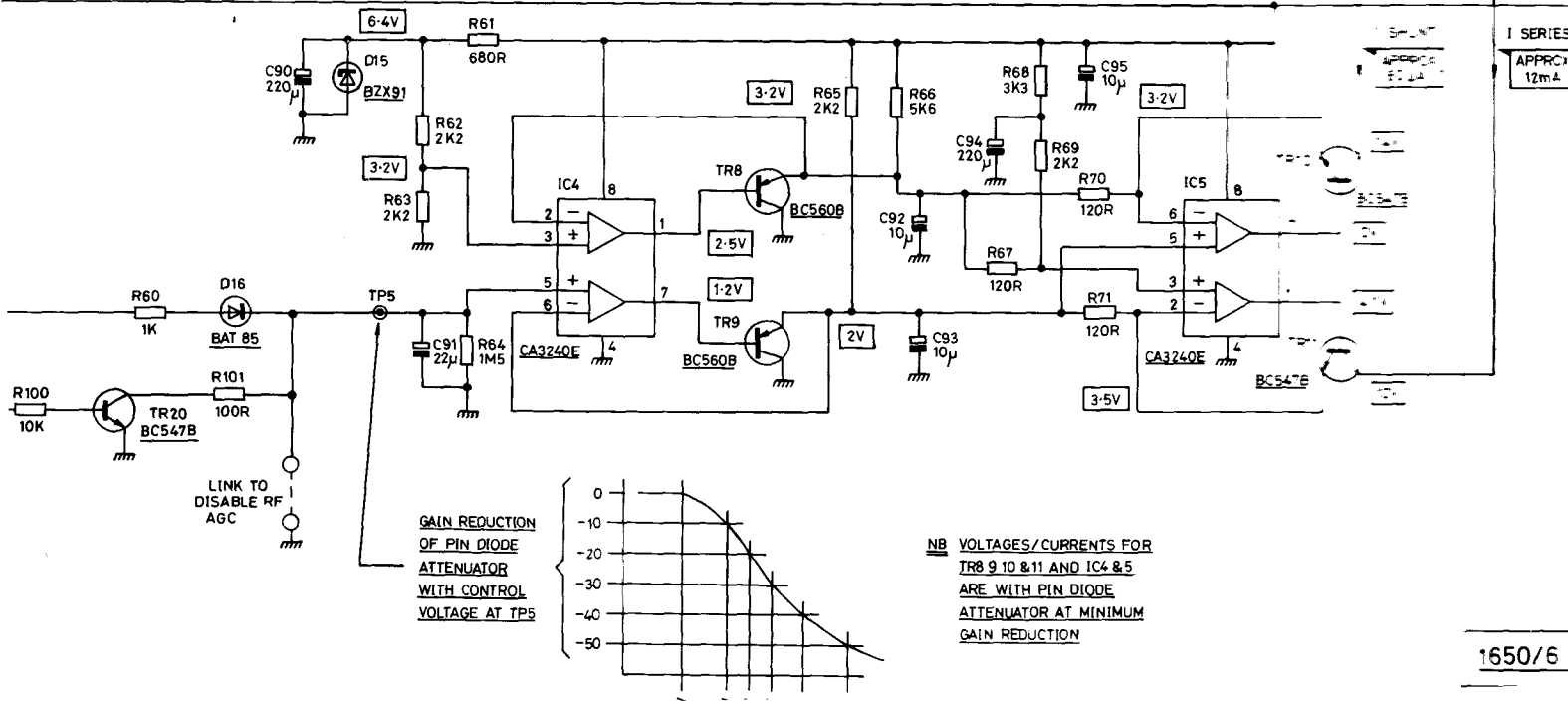
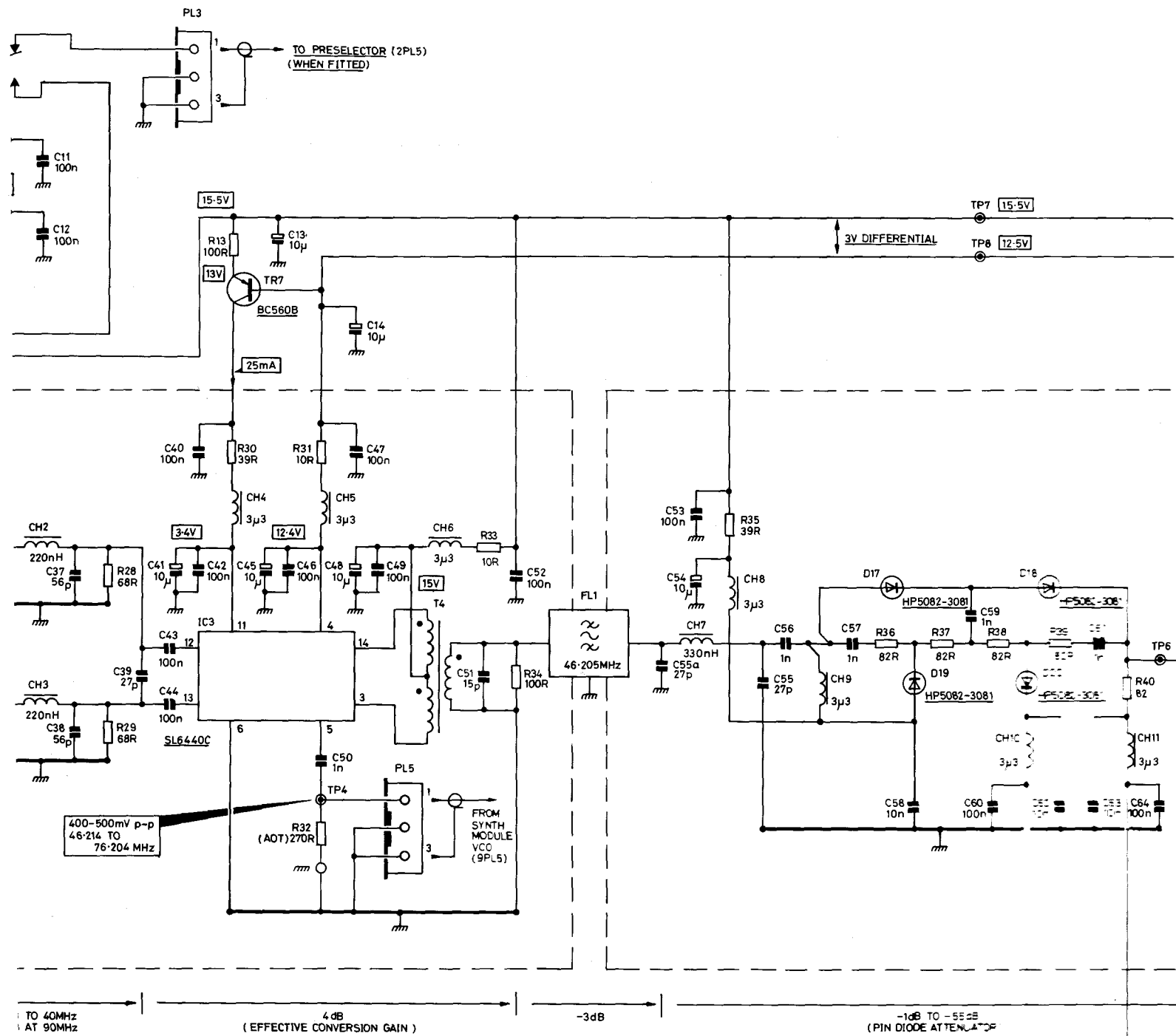


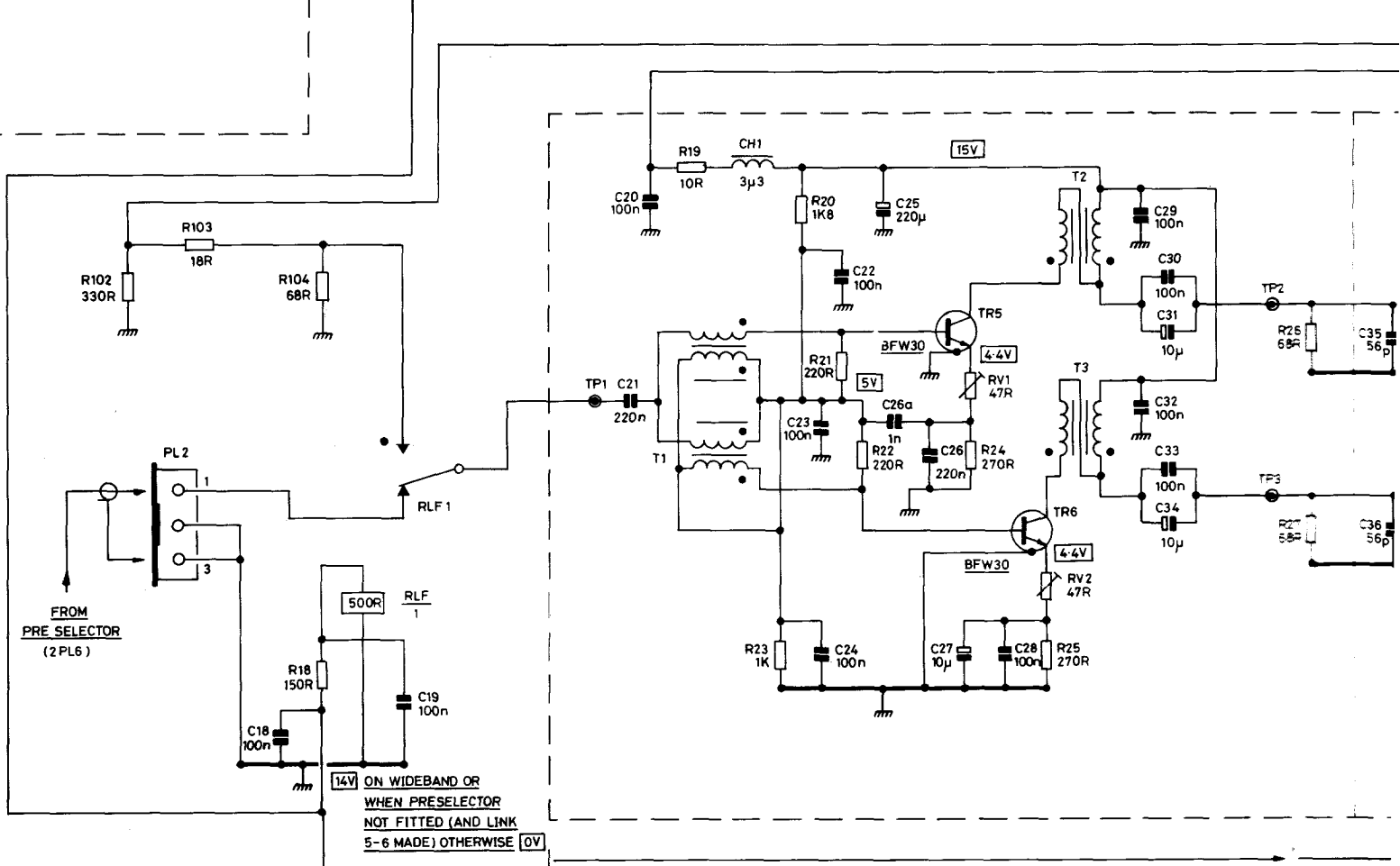
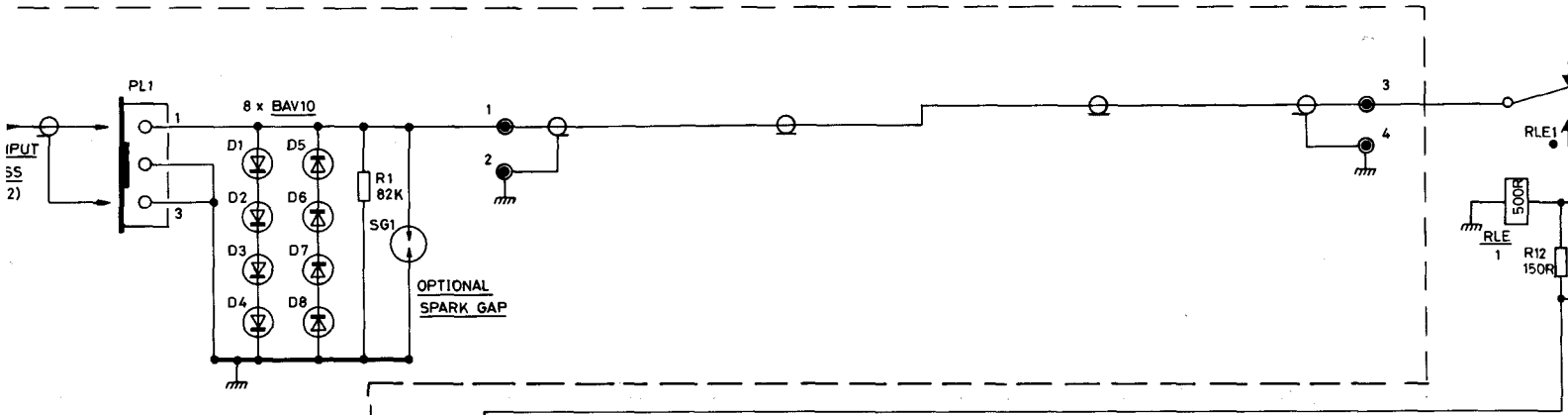
SERIES
APPROX
12mA



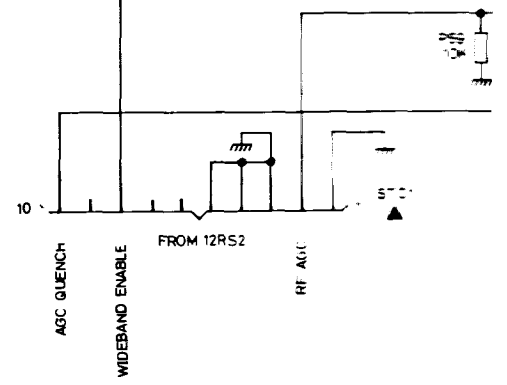
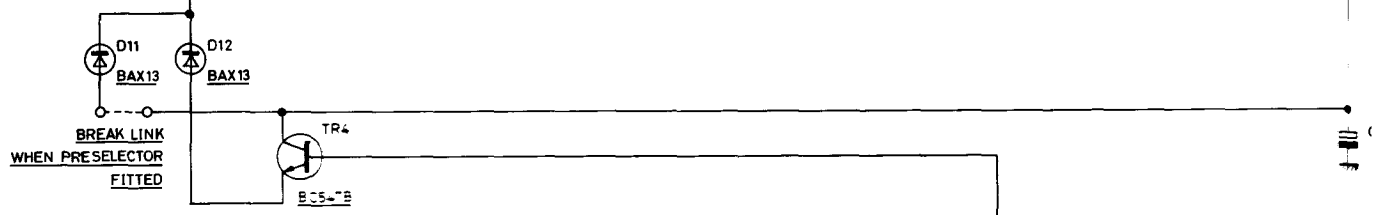
GAIN REDUCTION OF PIN DIODE
ATTENUATOR WITH CURRENT

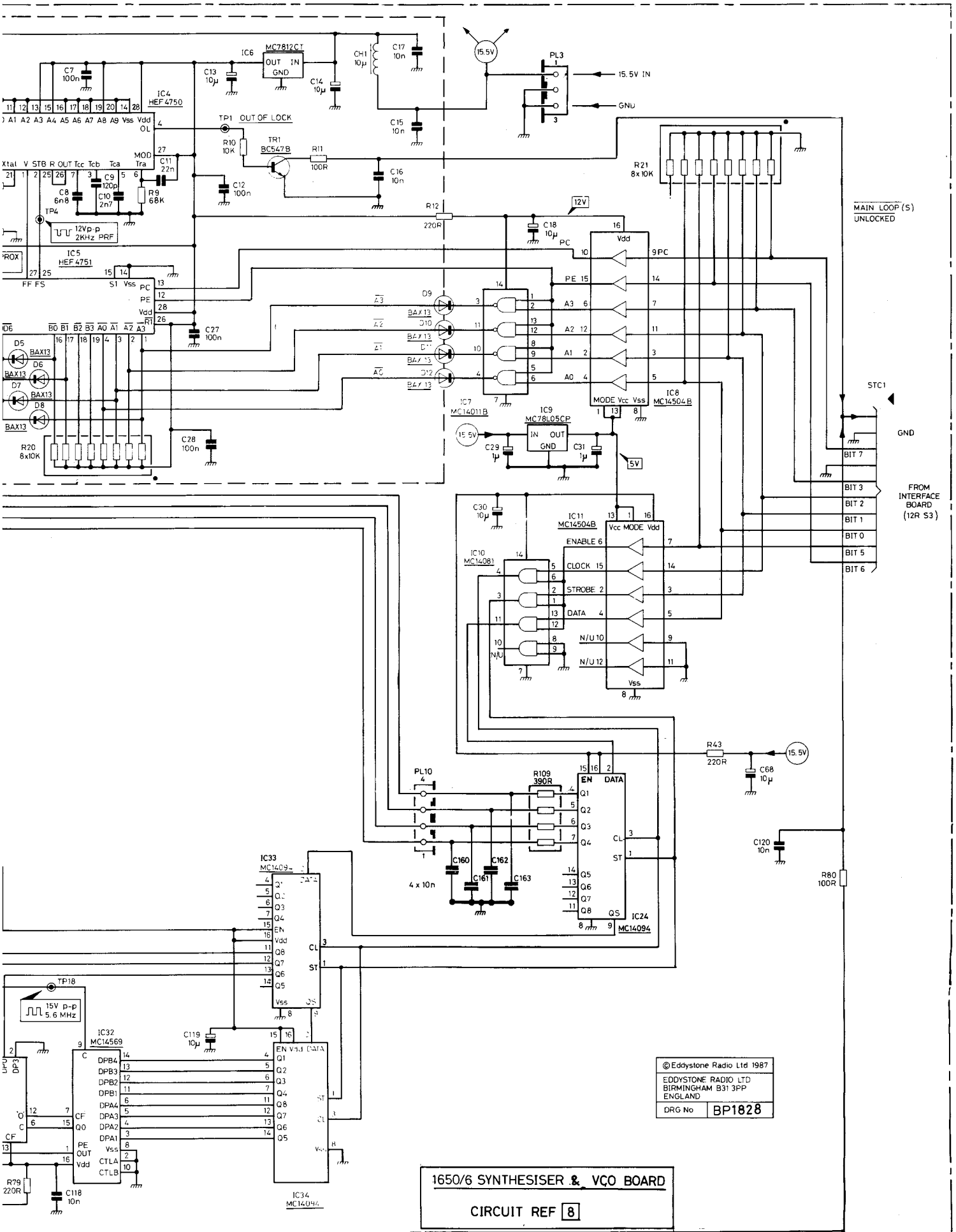
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ENGLAND
DRG N^o BP 1968





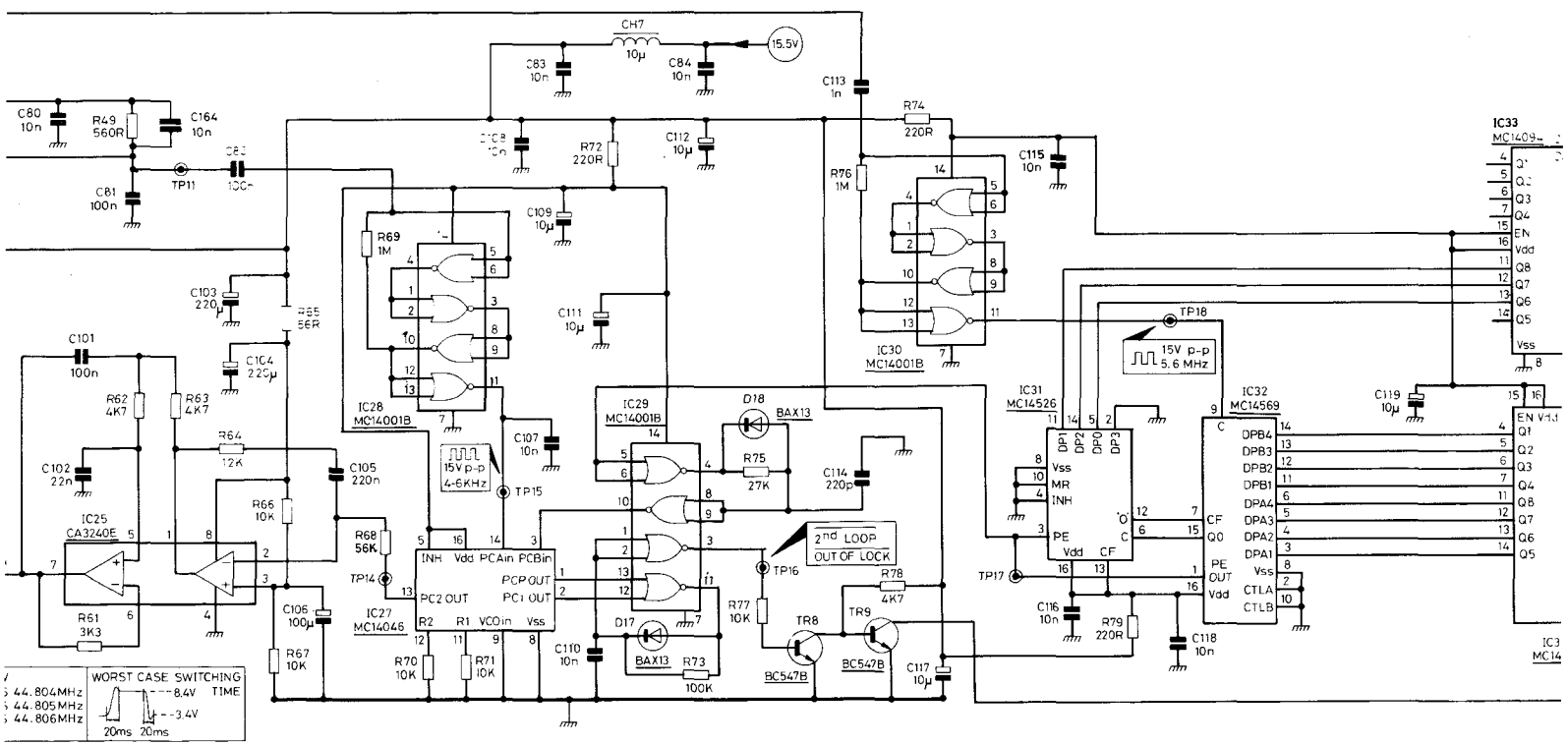
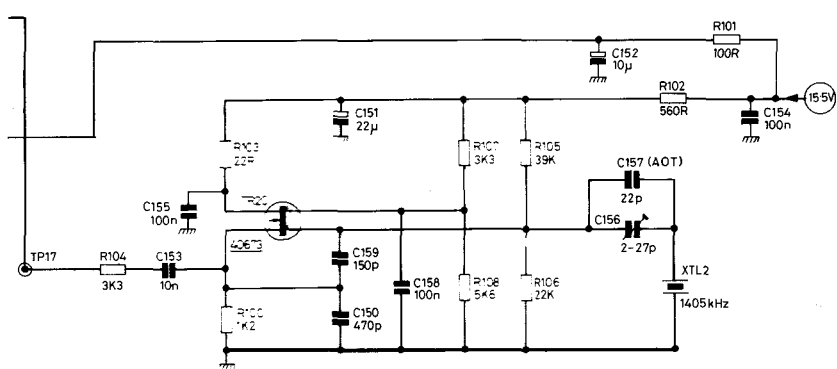
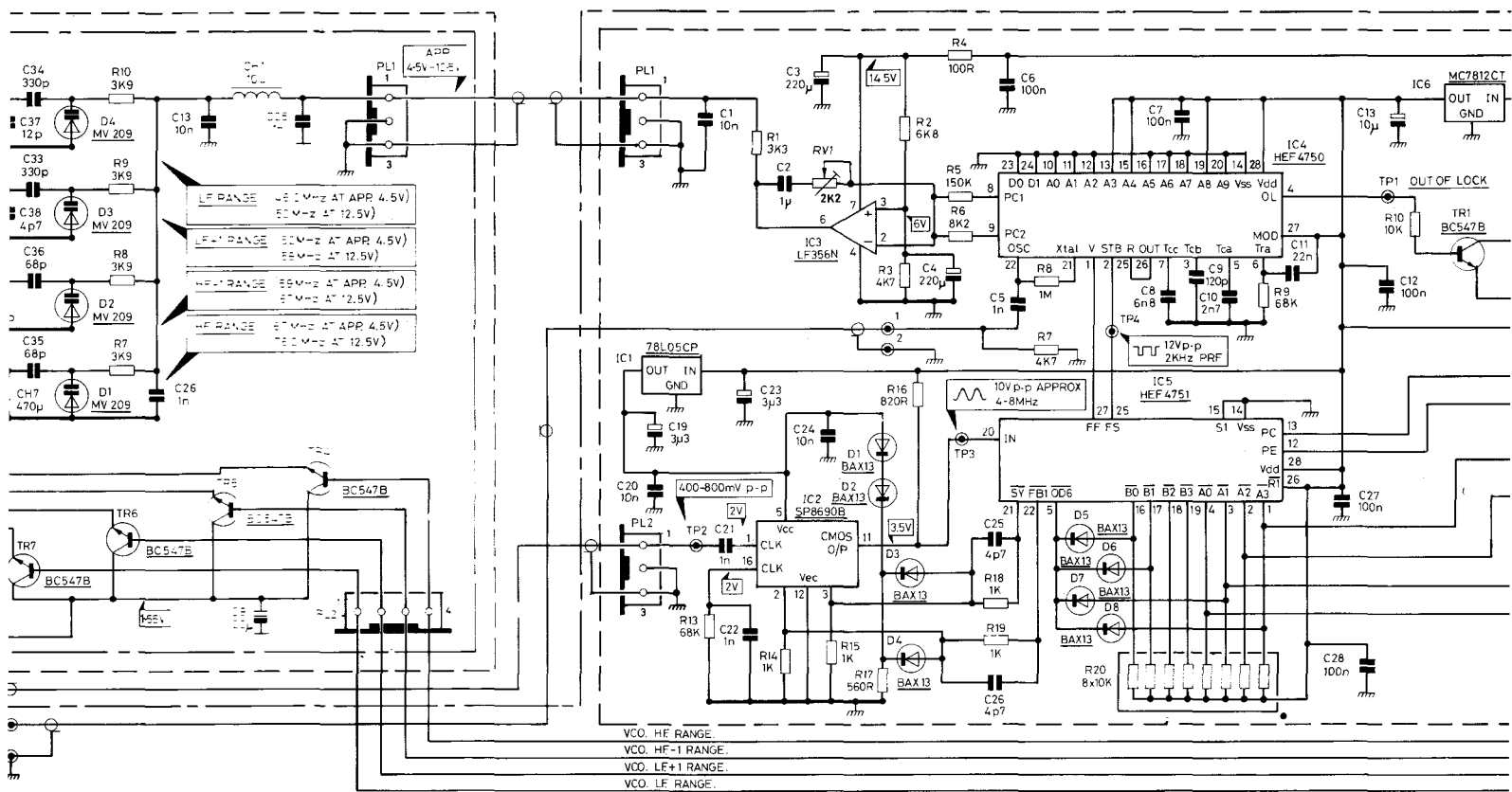
4dB TO -6dB GAIN TP1 TO TP2 AND TP3
 160KHz to 30MHz (Flat within 1-5dB) with 180° phase difference
 At 30KHz Gain falls by 4dB to TP3 and 18dB to TP2 60° phase difference
 At 10KHz Gain falls by 10dB to TP3 and 20dB to TP2 30° phase difference

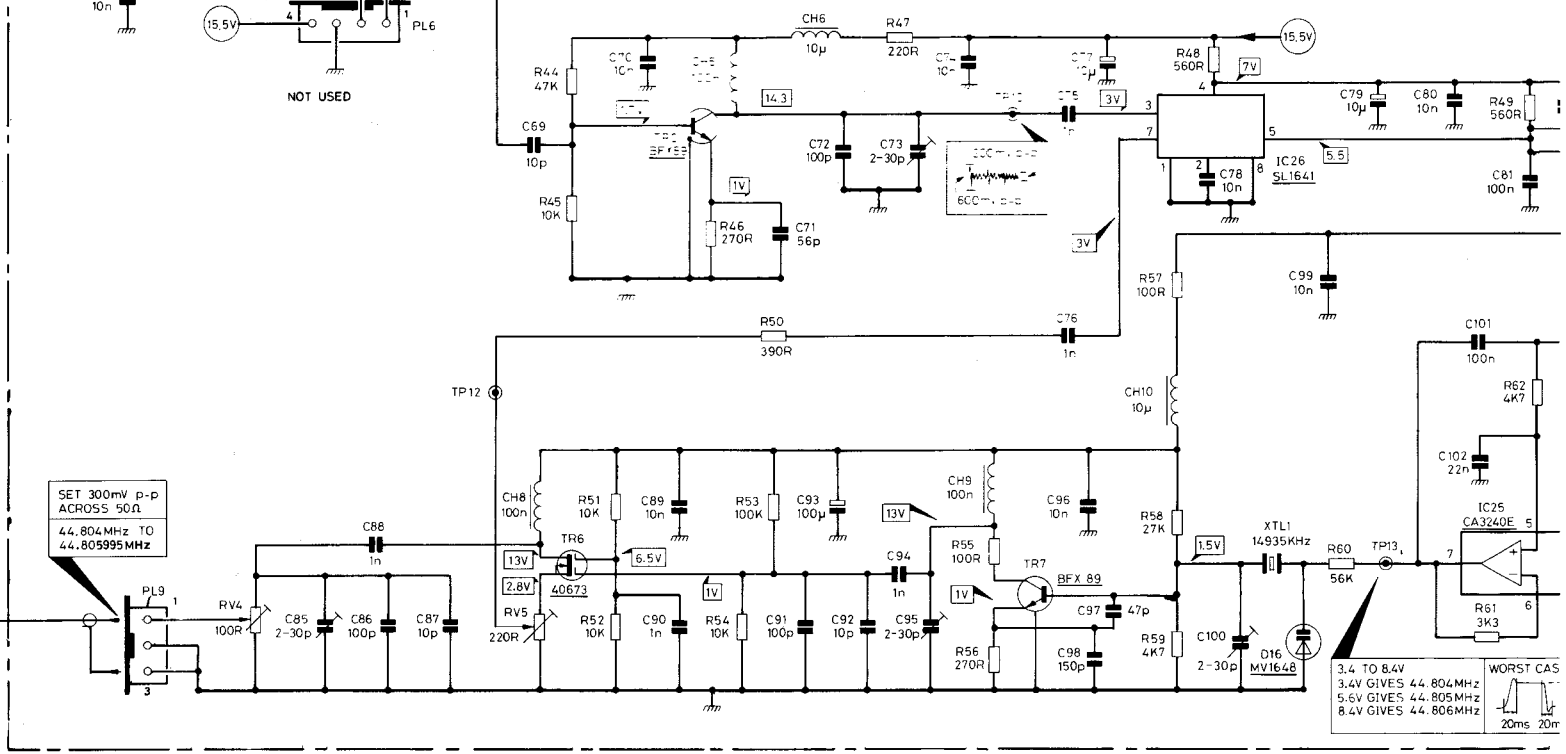
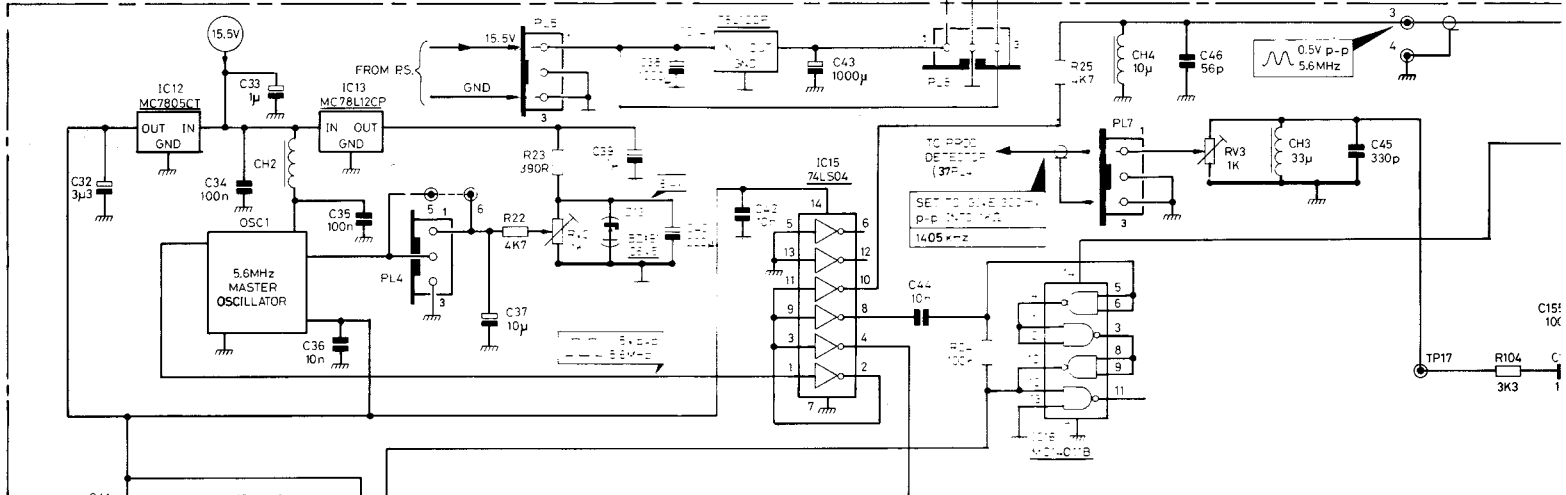
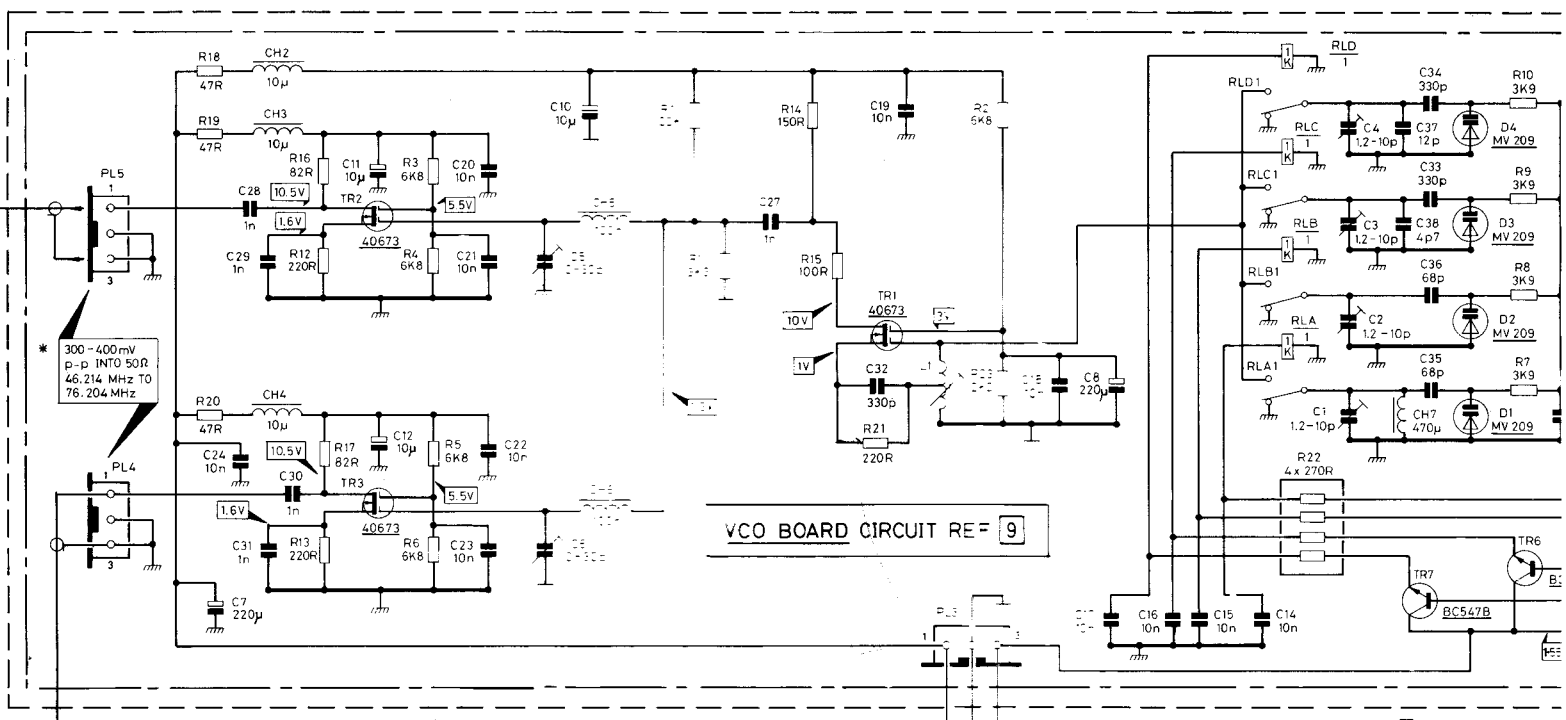


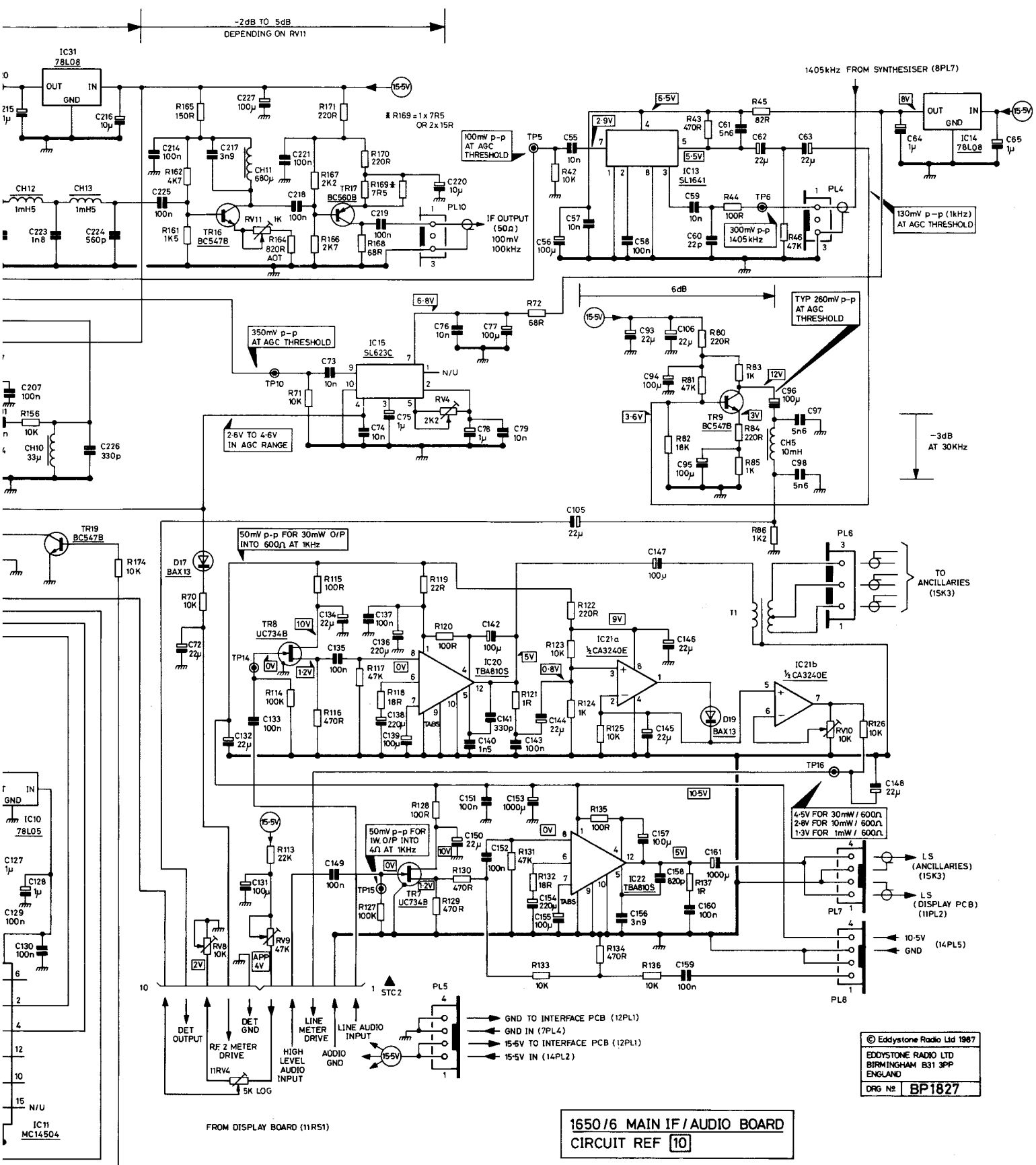


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 DRG No **BP1828**

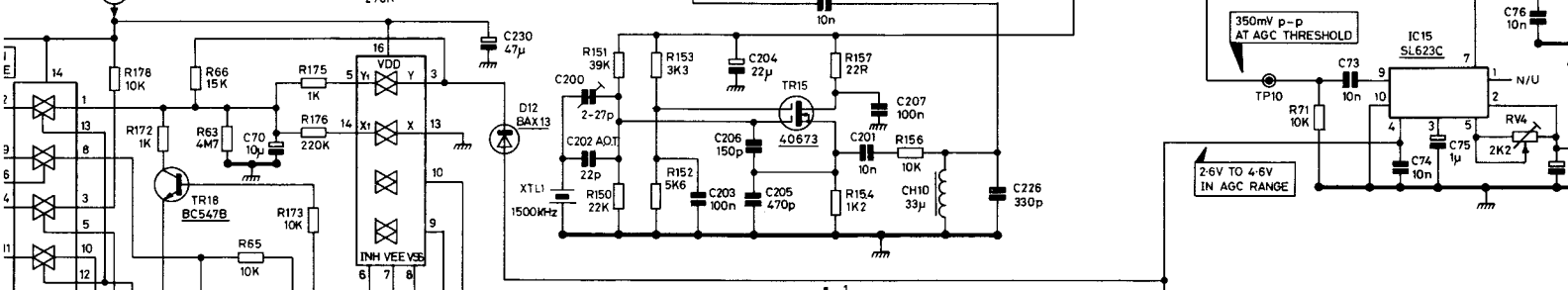
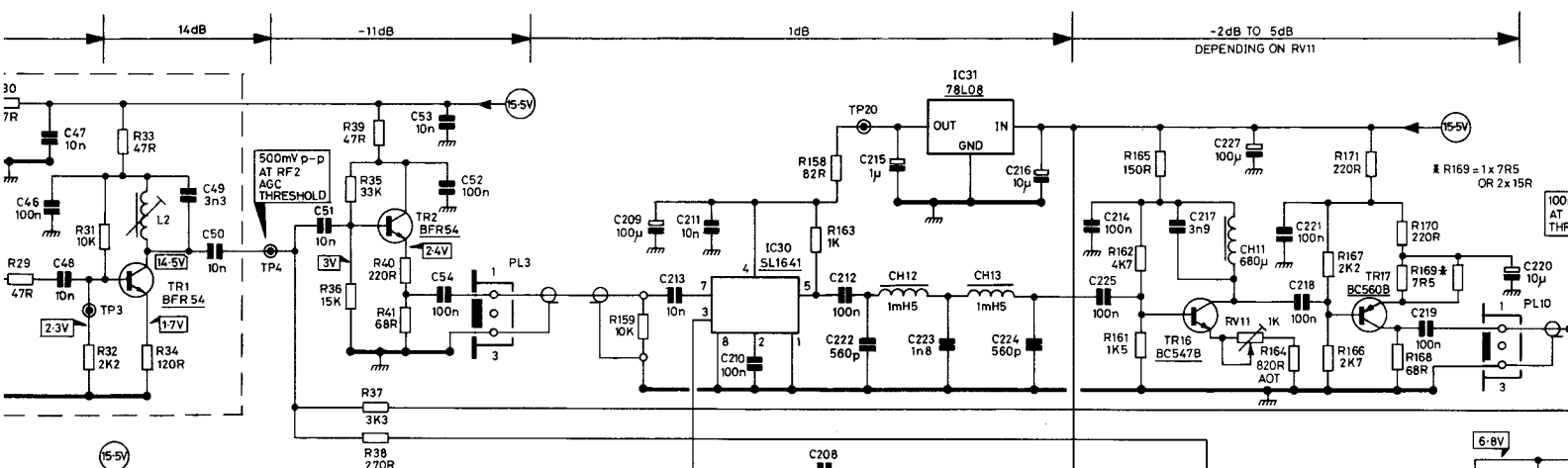
1650/6 SYNTHESISER & VCO BOARD
CIRCUIT REF 8



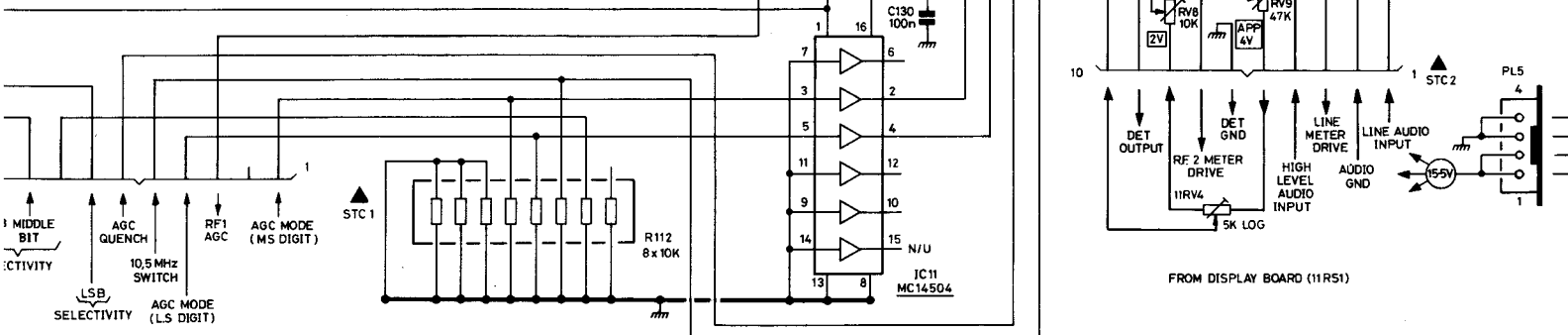
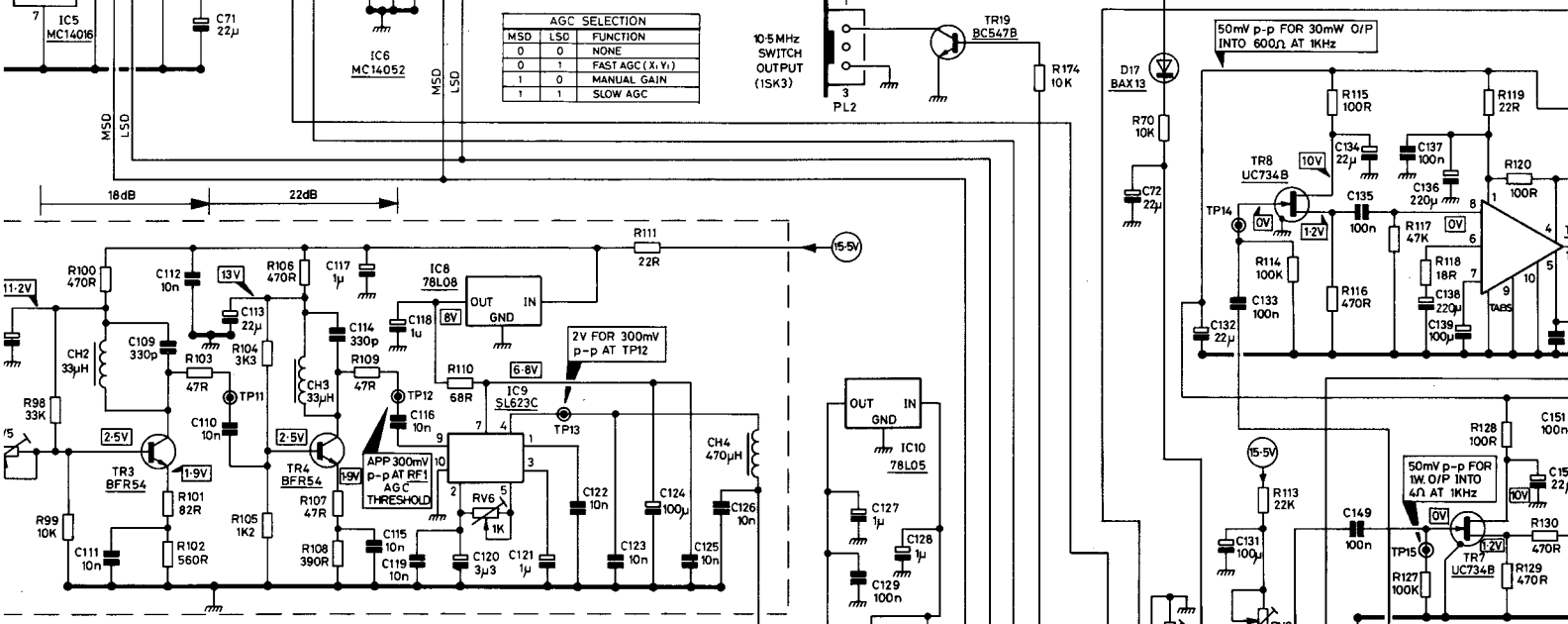




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 ENGLAND
 DRG No. BP1827



MSD	LSG	FUNCTION
0	0	NONE
0	1	FAST AGC (X, Y, Z)
1	0	MANUAL GAIN
1	1	SLOW AGC

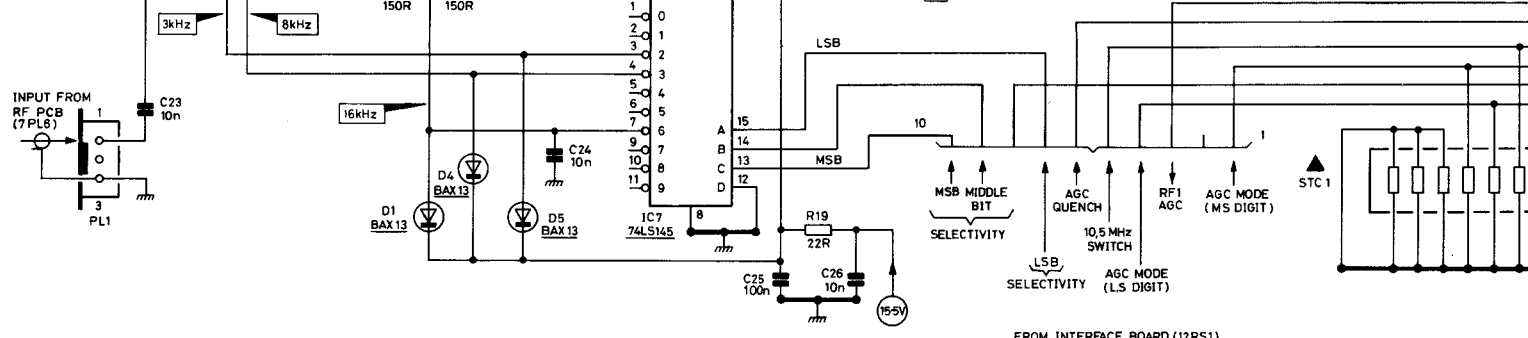
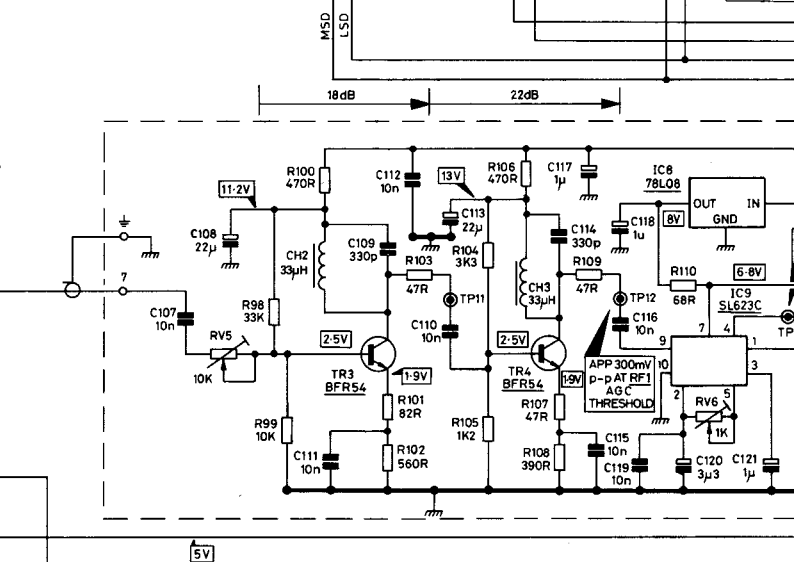
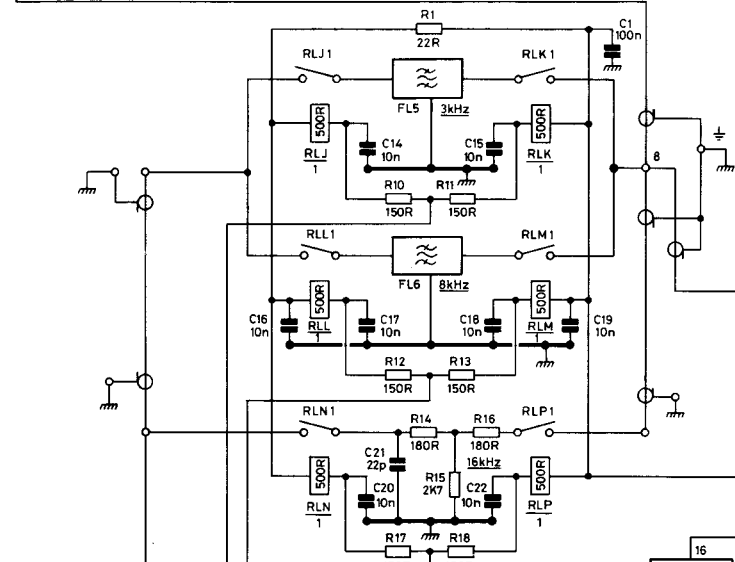
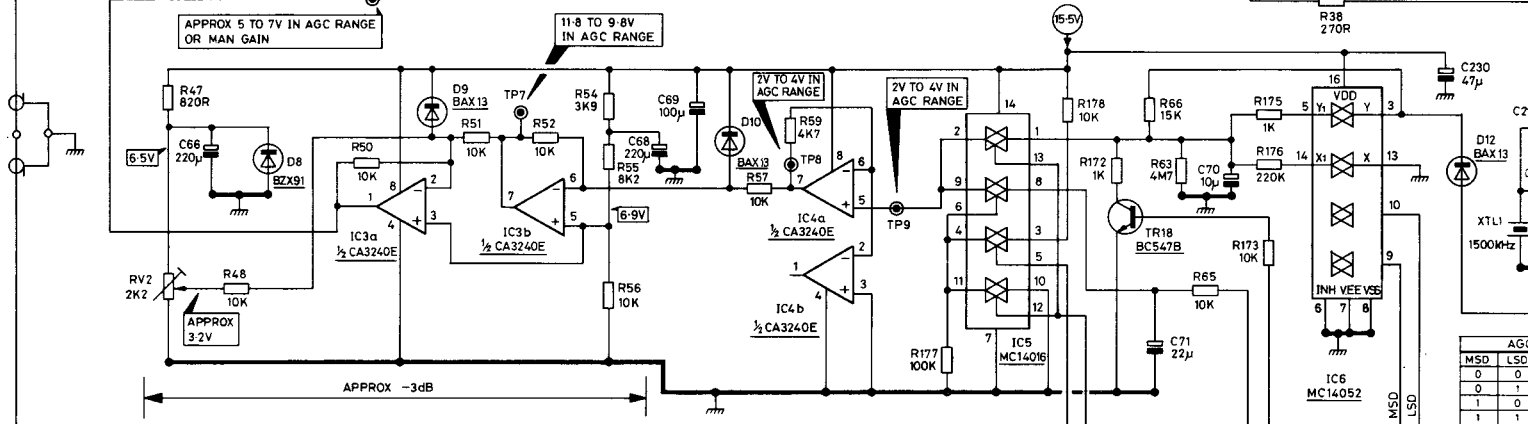
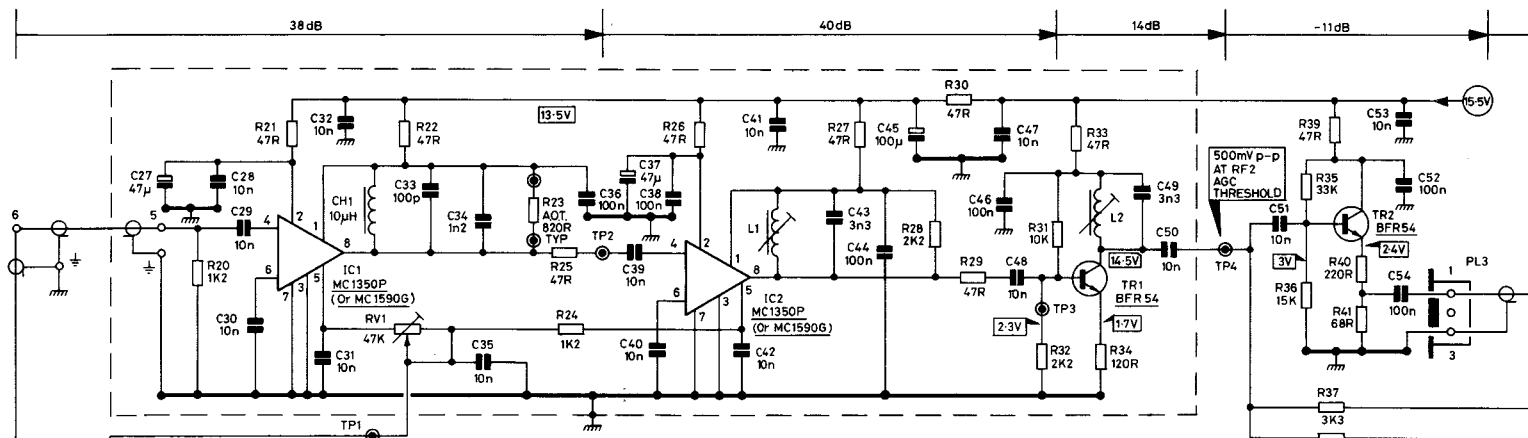


FROM INTERFACE BOARD (12R51)

FROM DISPLAY BOARD (11R51)

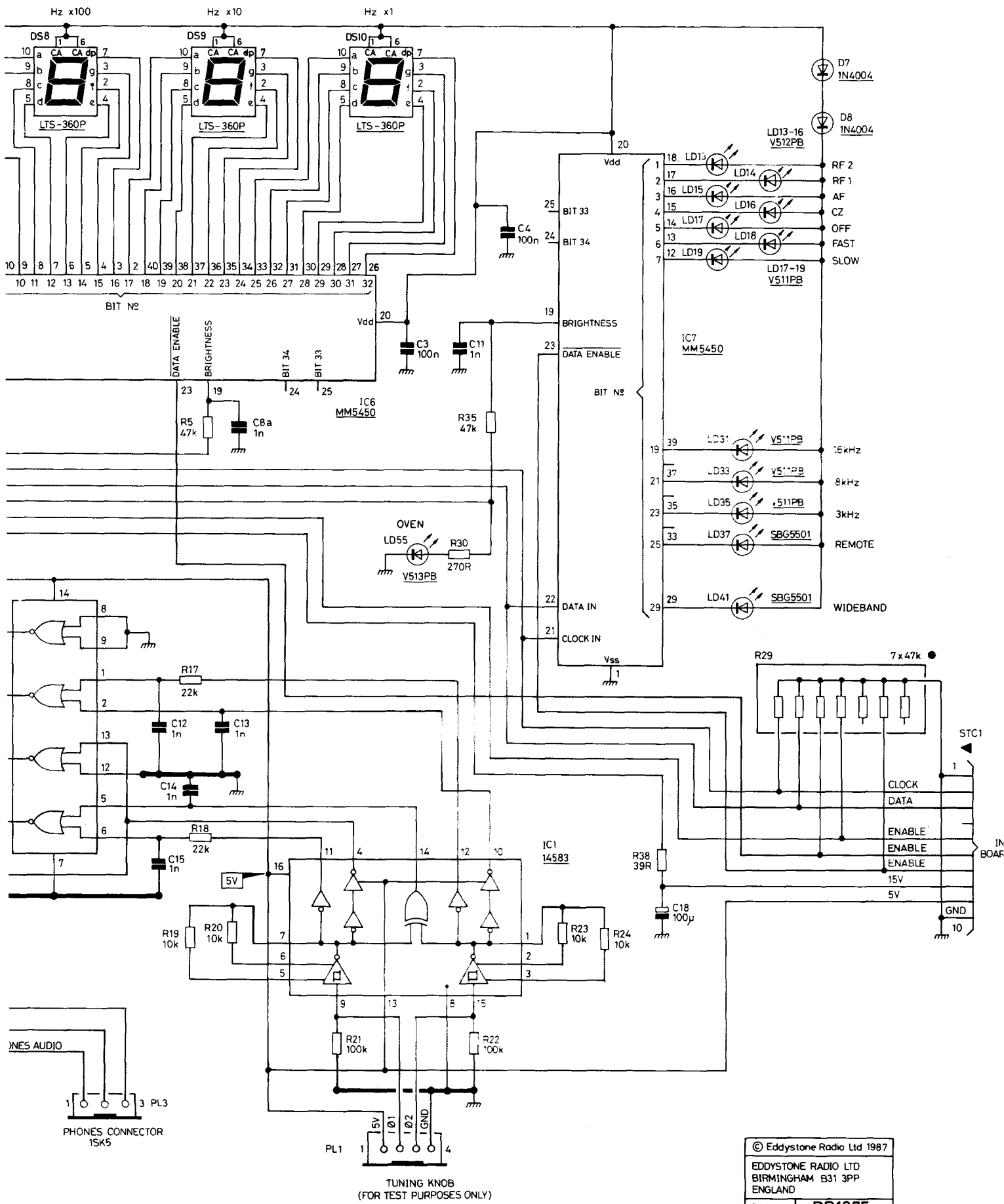
- MIDDLE BIT ACTIVITY
- AGC QUENCH
- 10.5MHz SWITCH
- LSB SELECTIVITY
- RF1 AGC
- AGC MODE (MS DIGIT)
- AGC MODE (LS DIGIT)

- DET OUTPUT
- DET GND
- LINE METER DRIVE
- HIGH LEVEL AUDIO INPUT
- LINE AUDIO INPUT
- AUDIO GND



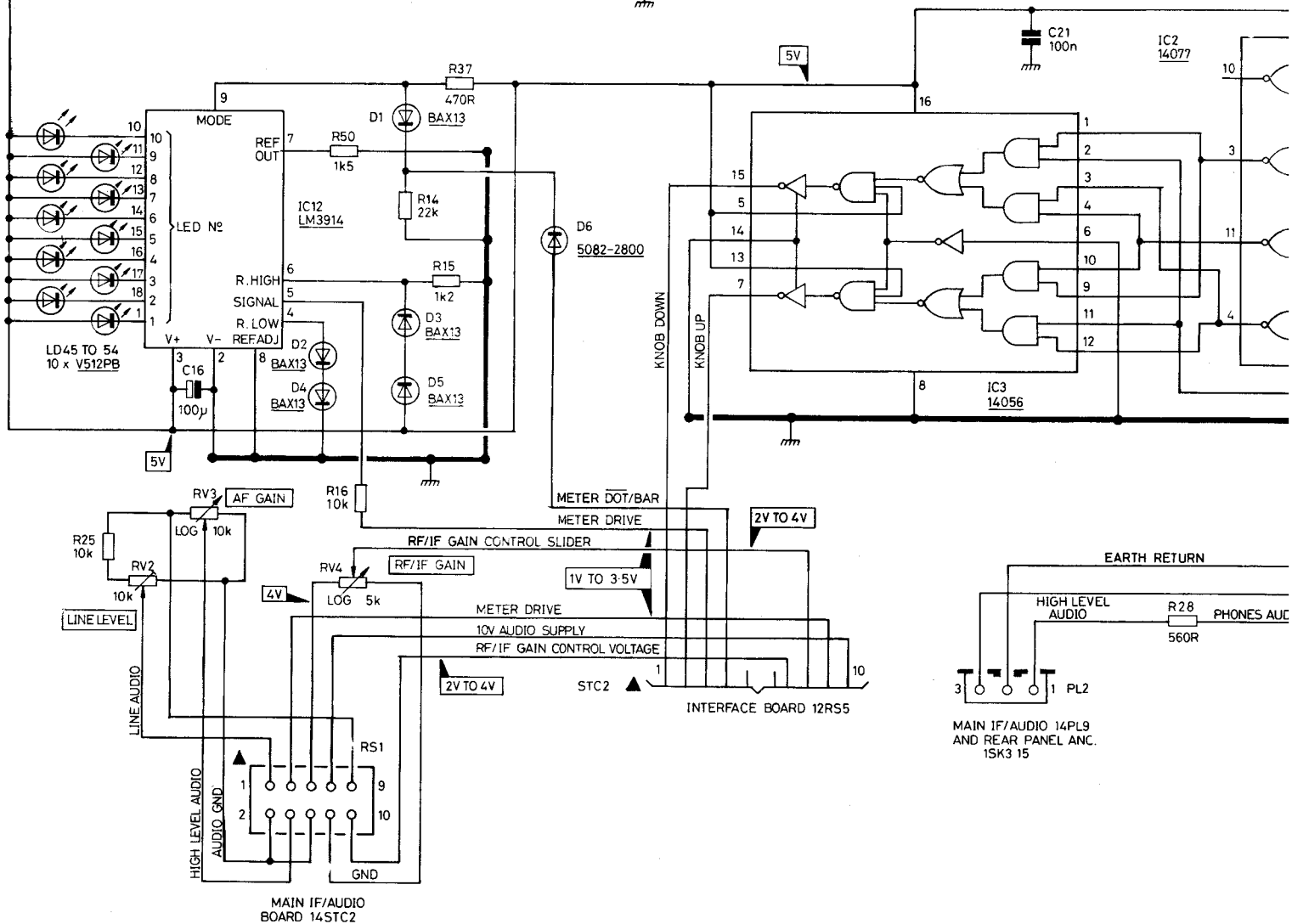
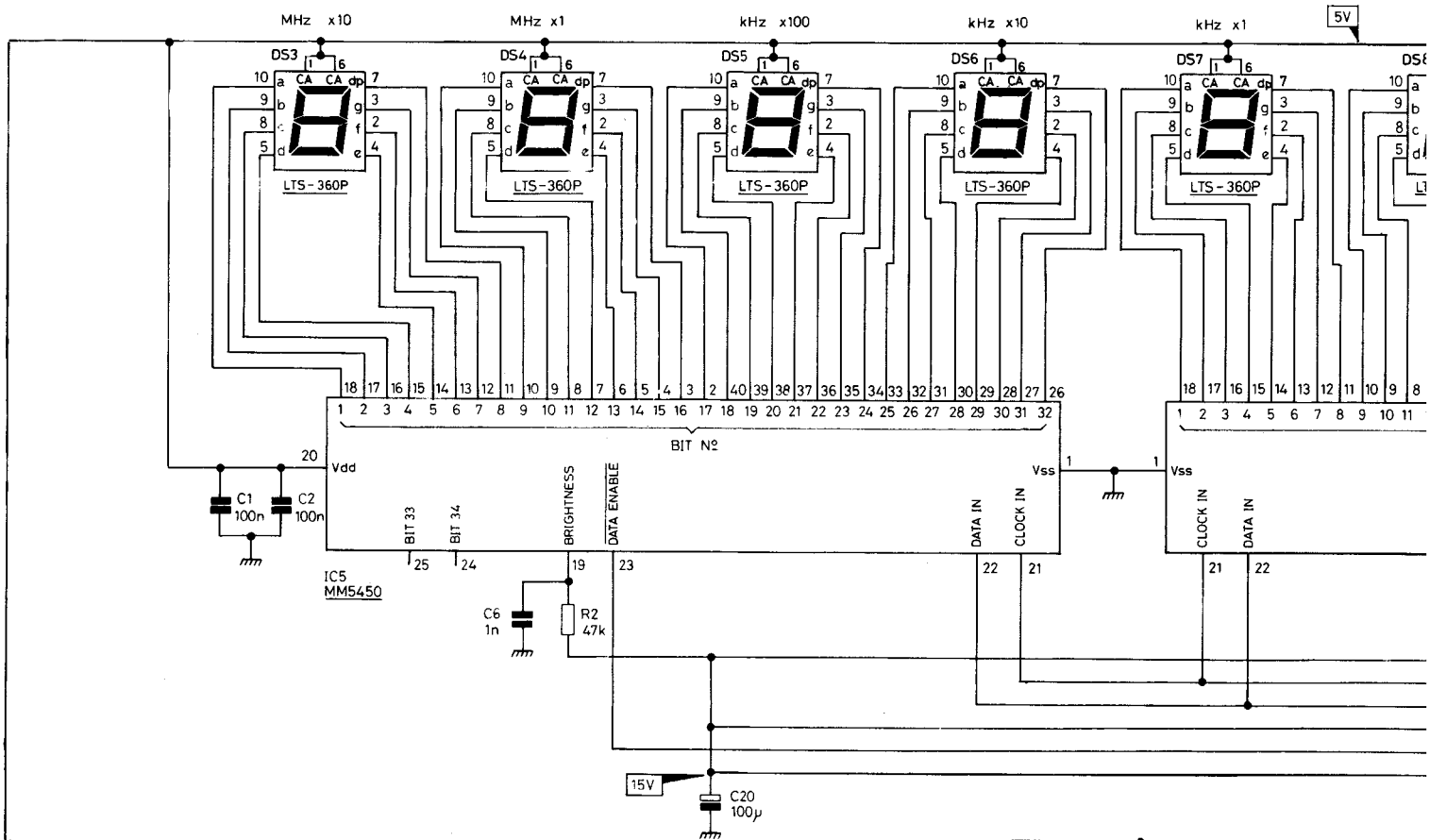
	AGC
MSD	0
LSD	0
0	1
1	0
1	1

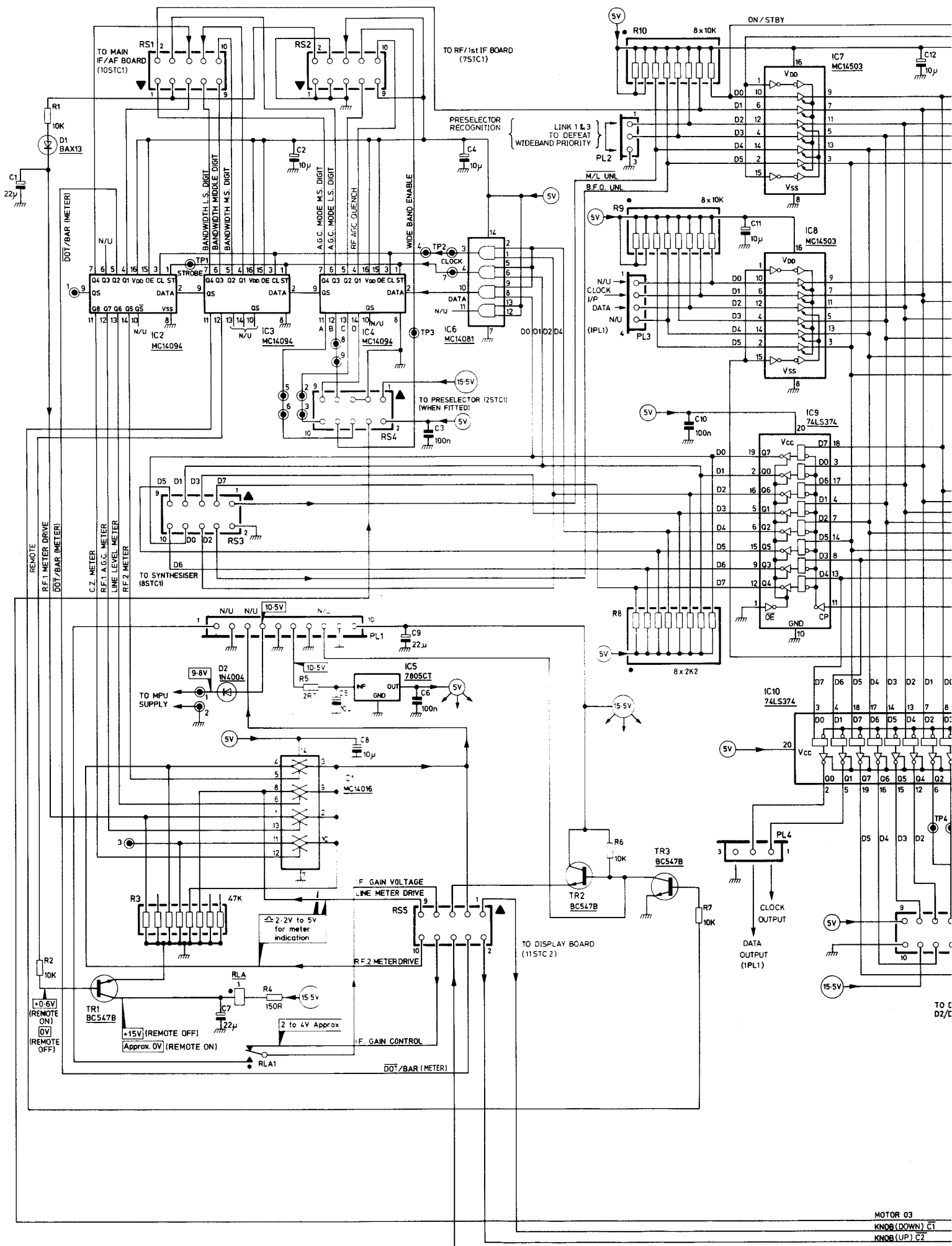
FROM INTERFACE BOARD (12RS1)



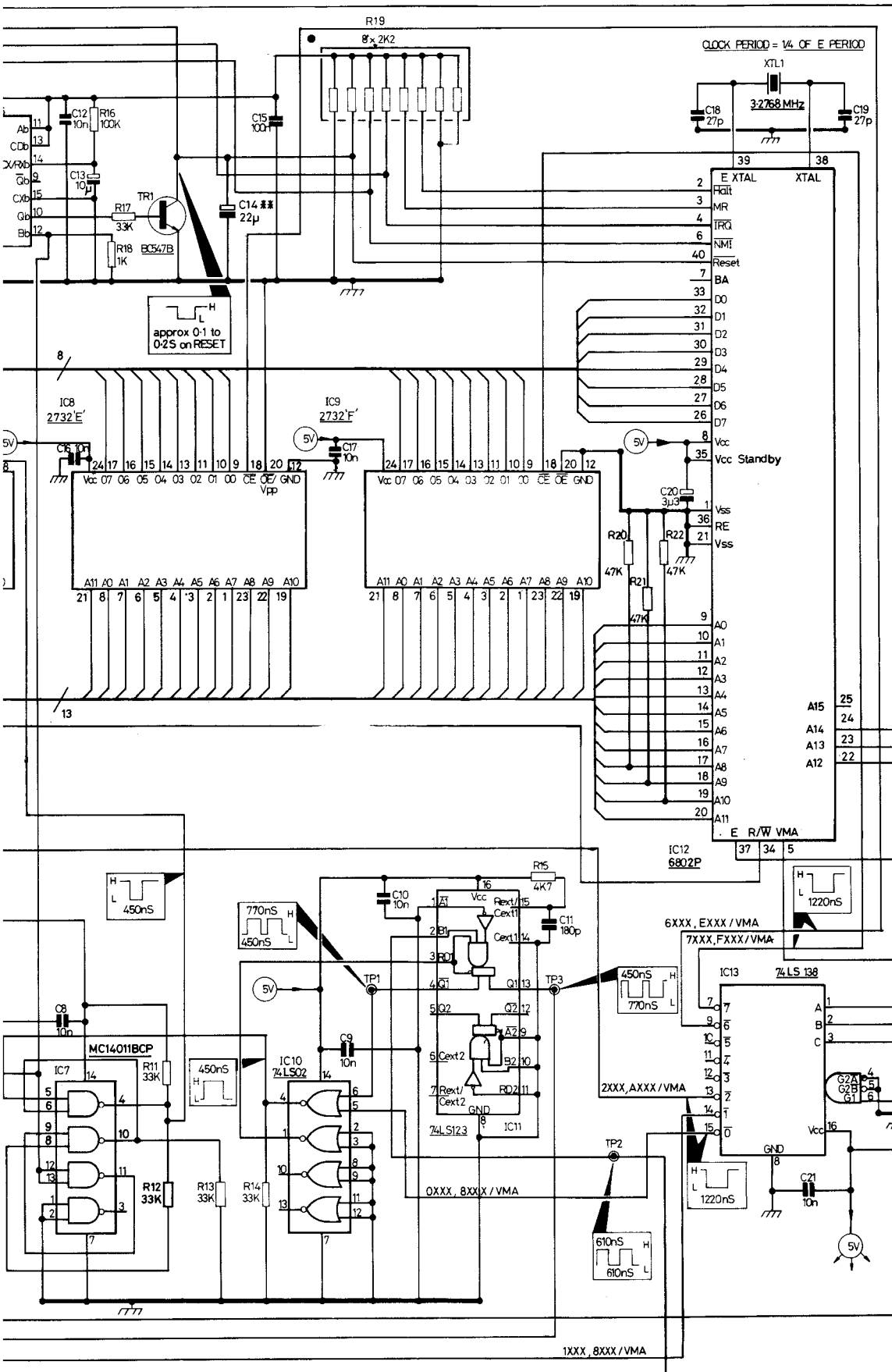
1650/6 FRONT PANEL DISPLAY BOARD
CIRCUIT REF 11

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MOTOR 03
 KNOB (DOWN) C1
 KNOB (UP) C2



MEMORY MAP	
0 XXX	0000 TO 007 F ONLY = 2K NV RAM
1 XXX	1000 TO 1007 ONLY 8 PERIPHERAL ENAB.
2 XXX	2000 TO 2007 ONLY 8 TIMER REGISTERS
3 XXX	N/U
4 XXX	N/U
5 XXX	N/U
6 XXX	N/U
7 XXX	N/U
8 XXX	N/U
9 XXX	N/U
A XXX	N/U
B XXX	N/U
C XXX	N/U
D XXX	N/U
E XXX	4K EPROM
F XXX	4K EPROM (inc VECTORS)

NB 1 ADDRESSES NOT ALLOCATED ABOVE SHOULD NOT BE USED BECAUSE OF POSSIBLE REPEATS.

REST REPEATS

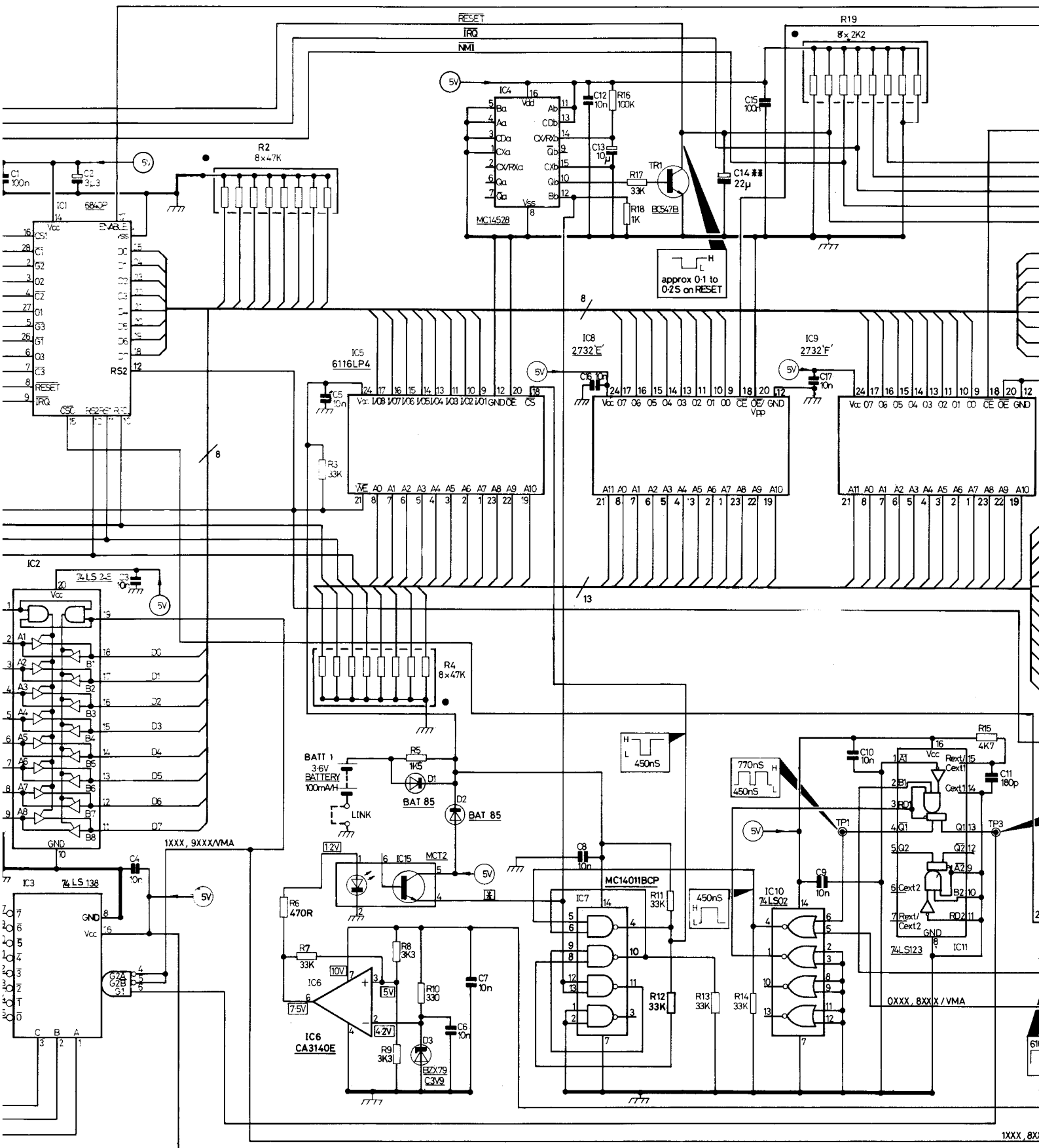
NO REPEATS

HIGH WHEN PCB I/P SUPPLY EXCEEDS APPROX 8.8V
LOW WHEN PCB I/P SUPPLY FALLS BELOW 8.3V } 0.5V HYSTERESIS

1650/6 RX

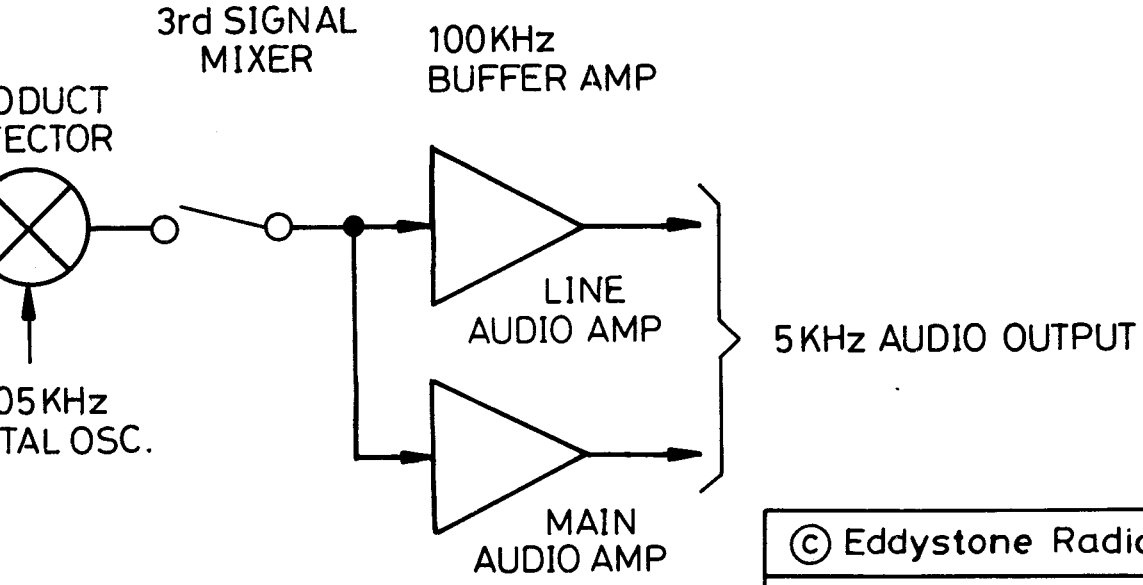
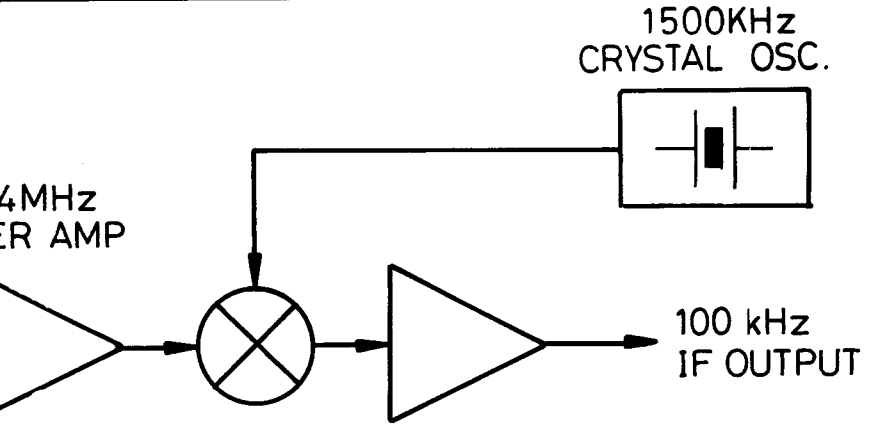
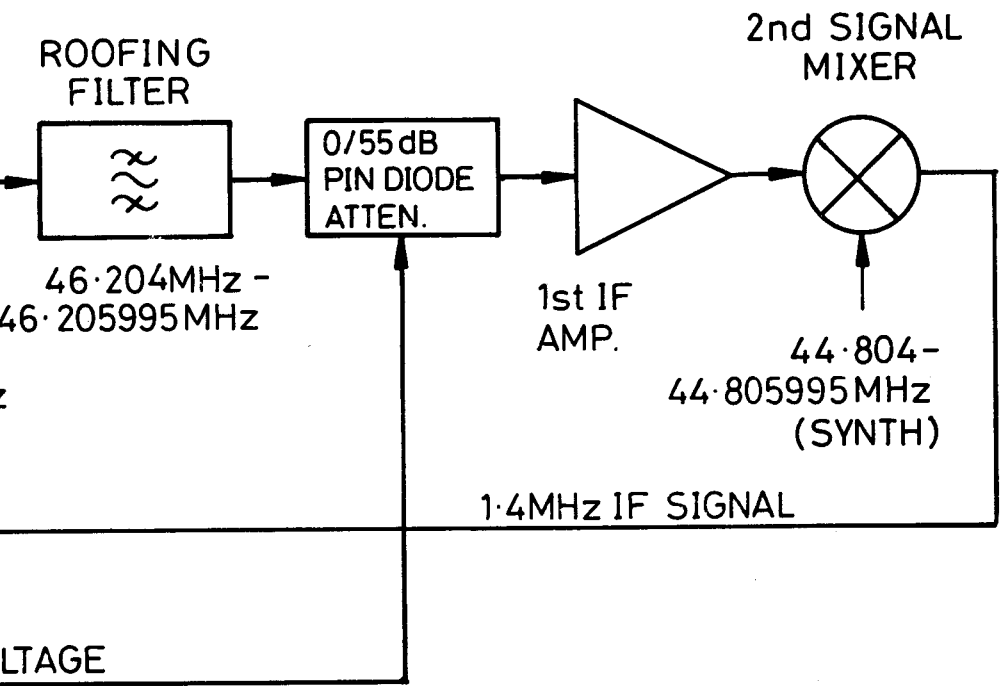
1650/6 MICRO-COMPUTER BOARD
CIRCUIT REF 13

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ENGLAND
DRG NO BP1556



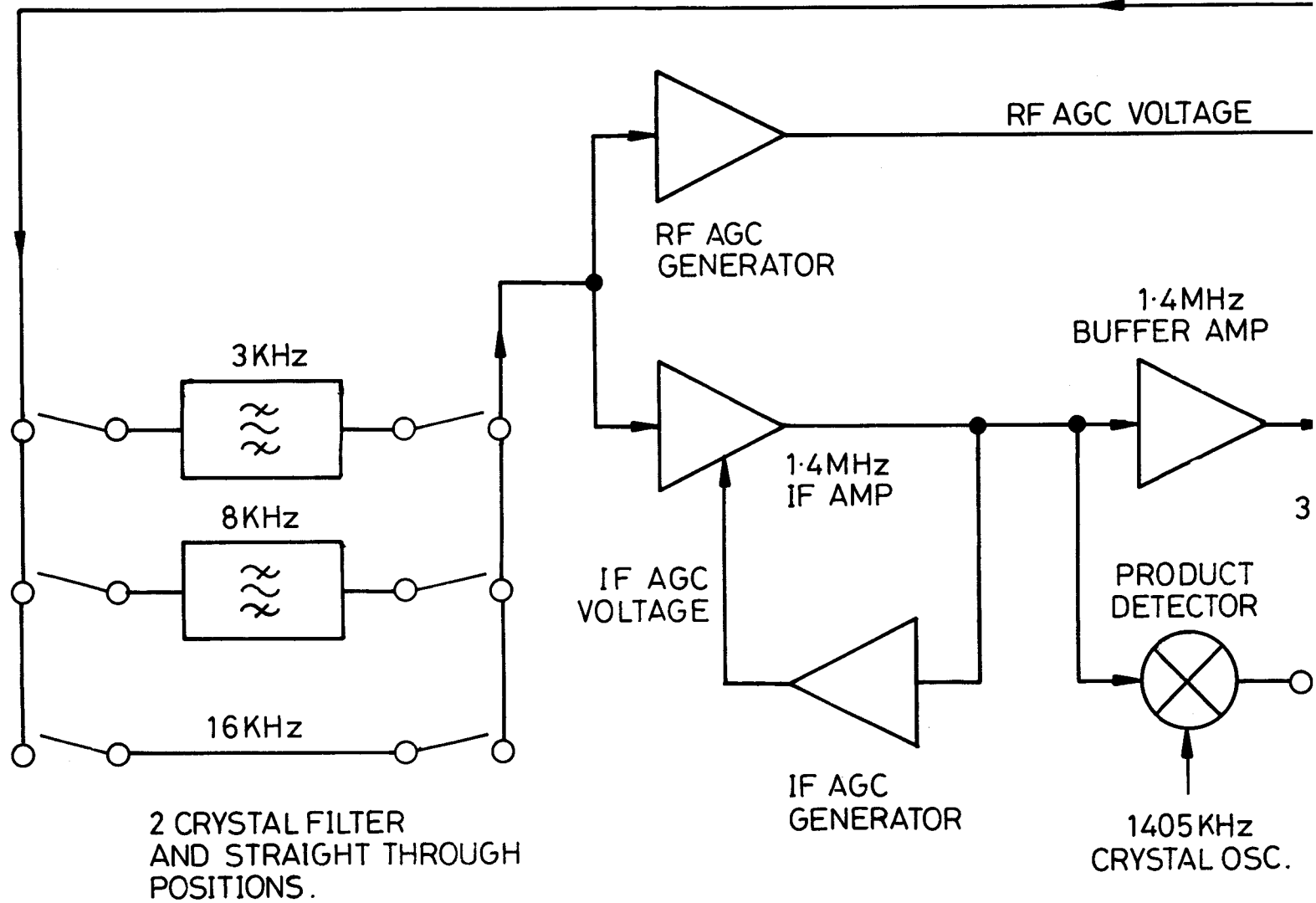
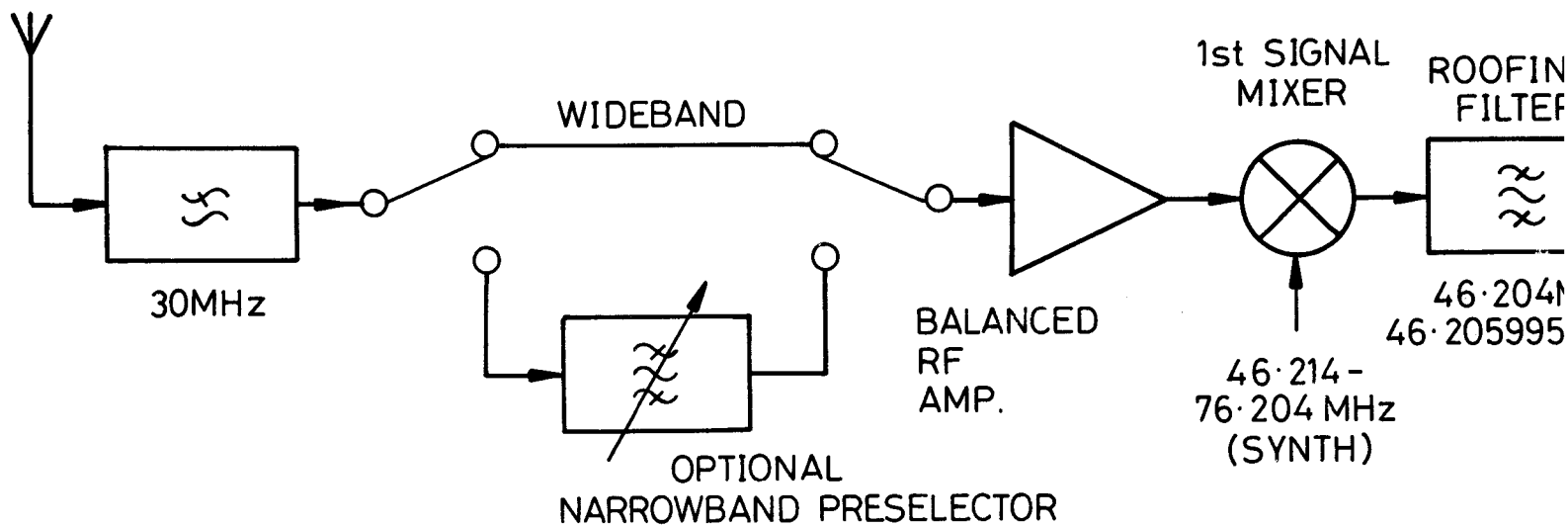
* PIN 4 MCT 2 { GOES HIGH WHEN PCB I/P SUPPLY EXCEEDS APPROX 8.8V
 GOES LOW WHEN PCB I/P SUPPLY FALLS BELOW 8.3V } 0.5V HYSTERESIS

** C14 NOT FITTED ON 1650/6 RX



GRAM

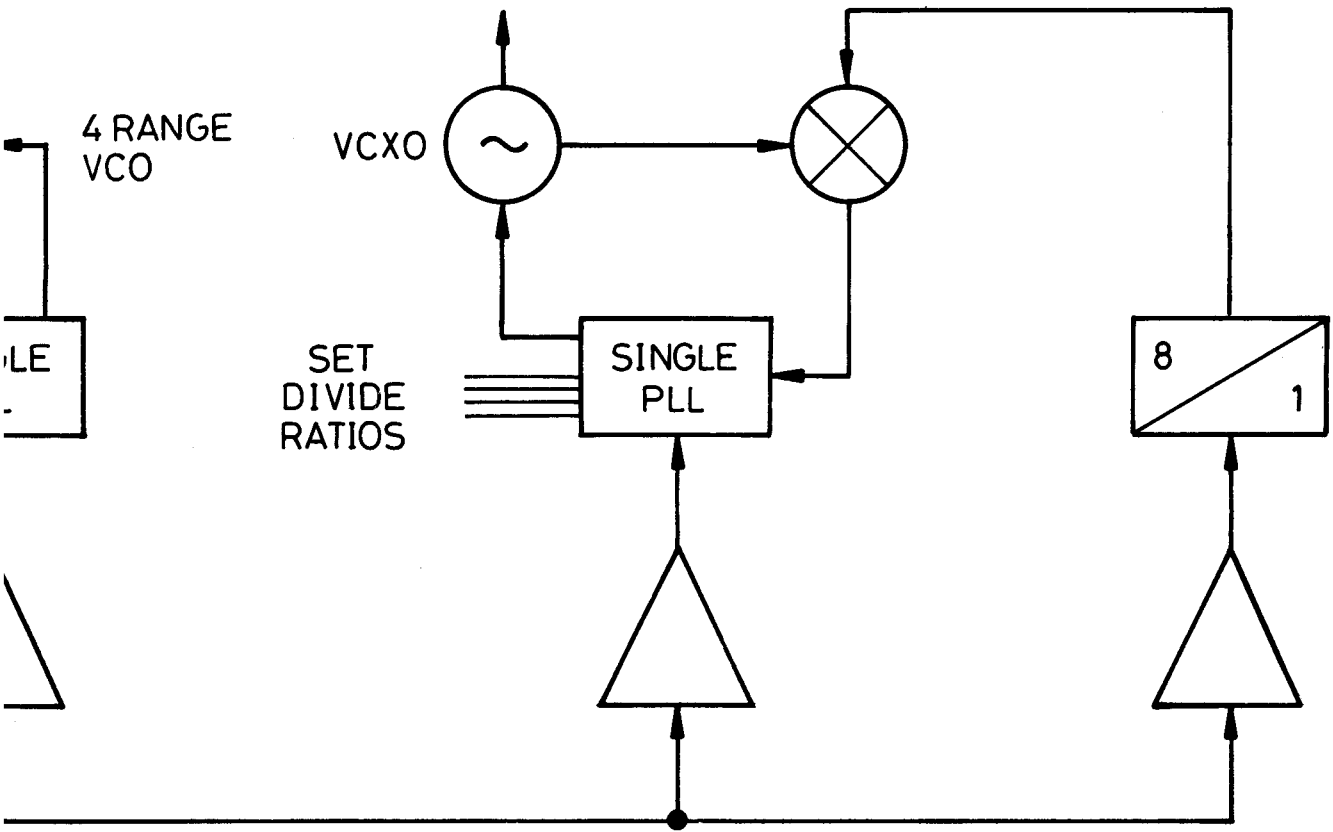
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DRG No	BP2022
ISSUE 1	



1650/6 RECEIVER SIGNAL CIRCUITS BLOCK DIAGRAM

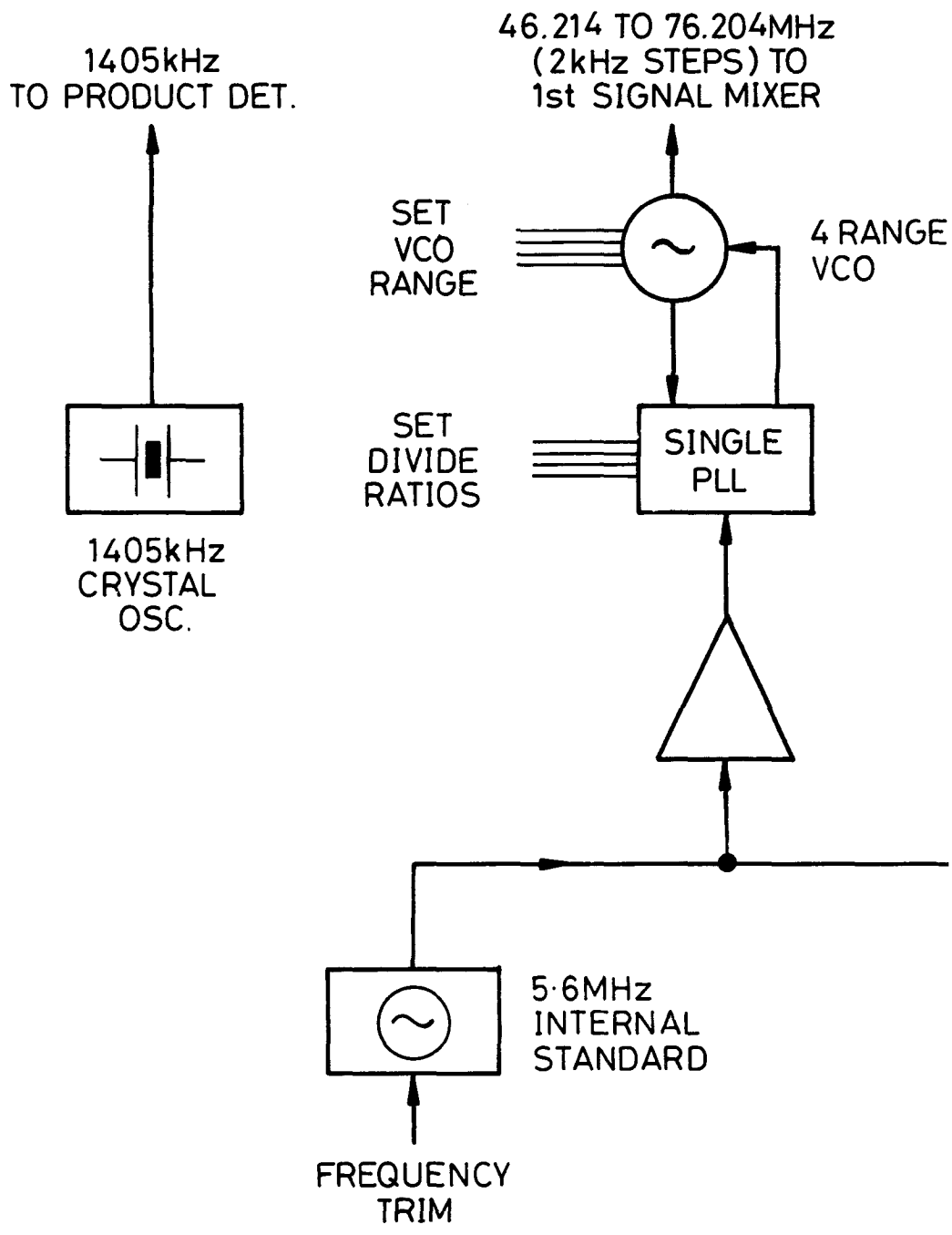
4MHz
) TO
MIXER

44.804 TO 44.805995MHz
(5 Hz STEPS) TO
2nd SIGNAL MIXER



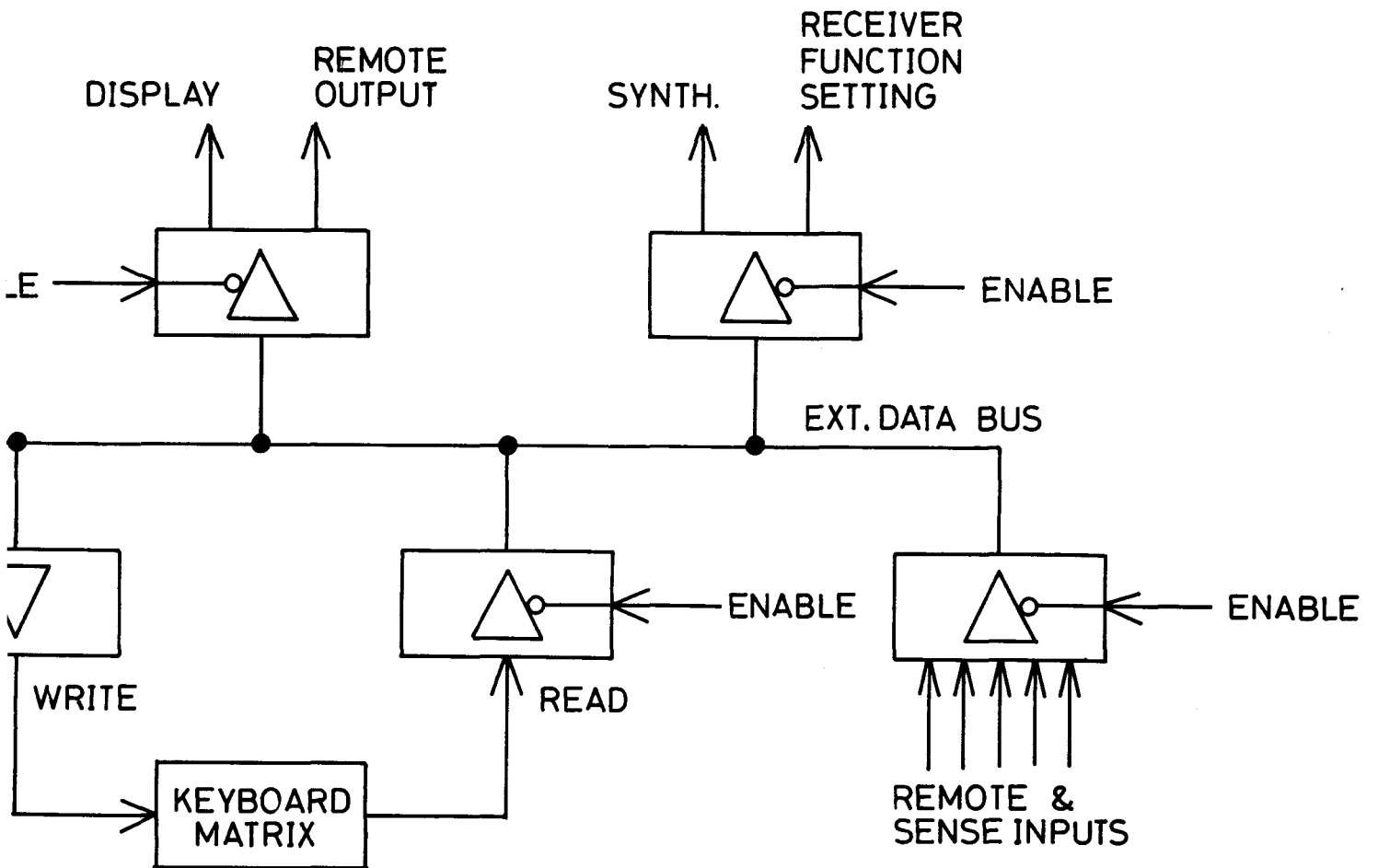
R CIRCUITS

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DRG No	BP2023
ISSUE 1	



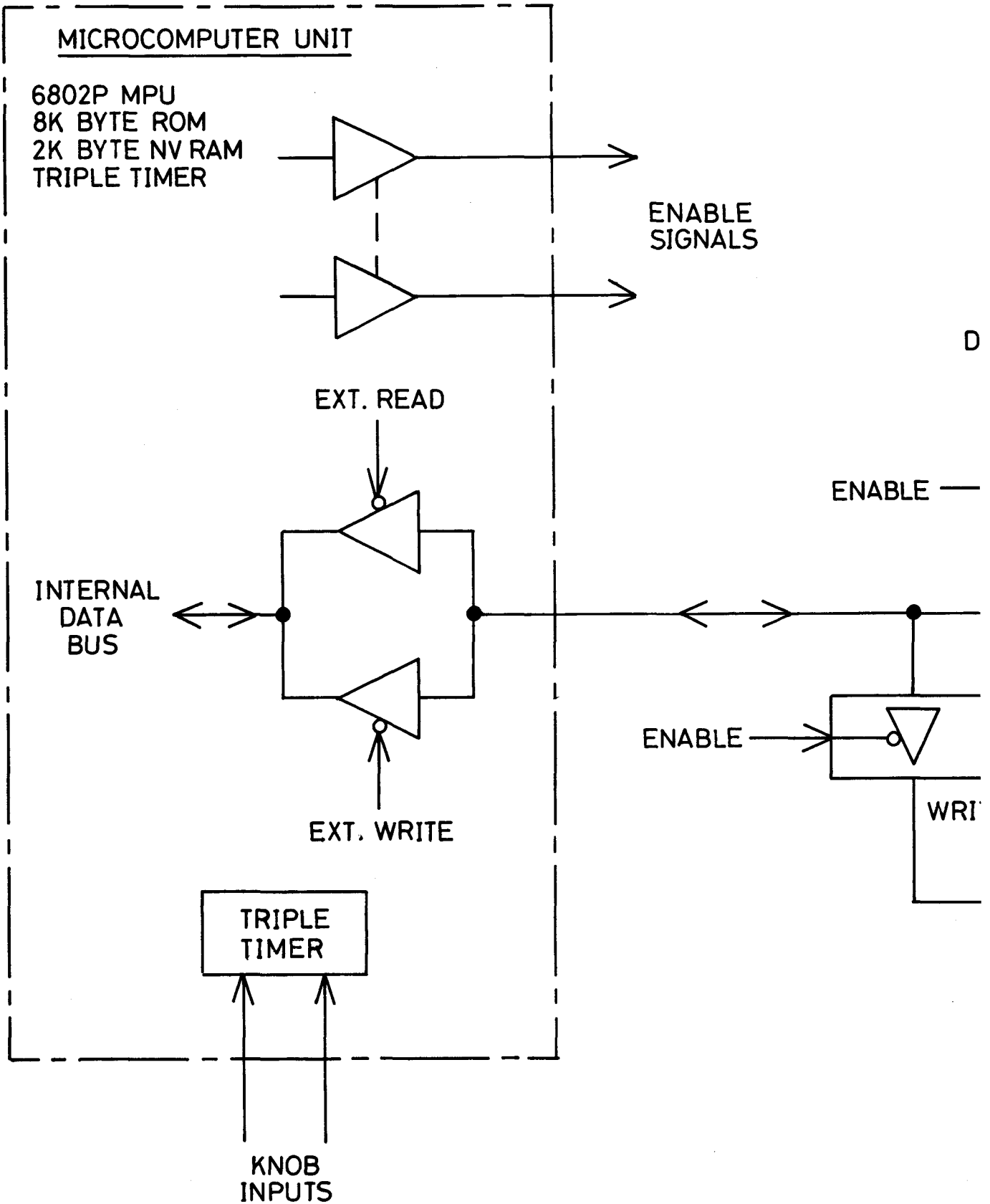
1650/6 RECEIVER SYNTHESISER CIRCUIT

BLOCK DIAGRAM



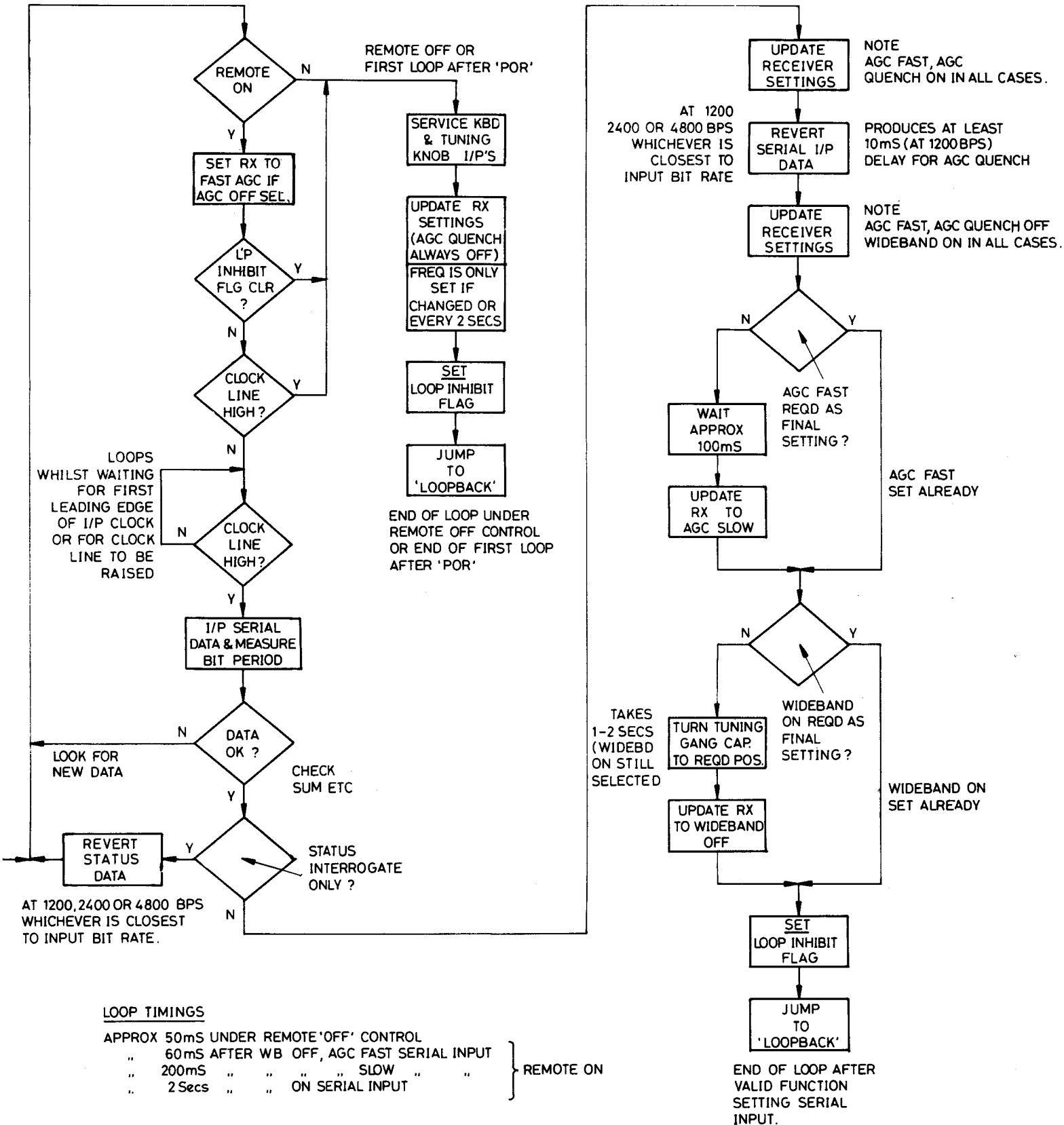
8085 **ICU CIRCUITS**

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DRG No	BP2042
ISSUE 1	



1650/6 RECEIVER, CONTROL & MCU

0/6 SIMPLIFIED EXECUTIVE PROGRAM FLOWCHART



LOOP TIMINGS

APPROX 50ms	UNDER REMOTE 'OFF' CONTROL	} REMOTE ON
.. 60ms	AFTER WB OFF, AGC FAST SERIAL INPUT	
.. 200ms	.. " " " SLOW " "	
.. 2Secs	.. " " ON SERIAL INPUT	

UPDATE RECEIVER SETTINGS
NOTE: AGC FAST, AGC QUENCH ON IN ALL CASES.

REVERT SERIAL I/P DATA
AT 1200, 2400 OR 4800 BPS WHICHEVER IS CLOSEST TO INPUT BIT RATE
PRODUCES AT LEAST 10mS (AT 1200BPS) DELAY FOR AGC QUENCH

UPDATE RECEIVER SETTINGS
NOTE: AGC FAST, AGC QUENCH OFF WIDEBAND ON IN ALL CASES.

AGC FAST REQD AS FINAL SETTING?
Y: UPDATE RX TO AGC SLOW
N: WAIT APPROX 100mS

AGC FAST SET ALREADY

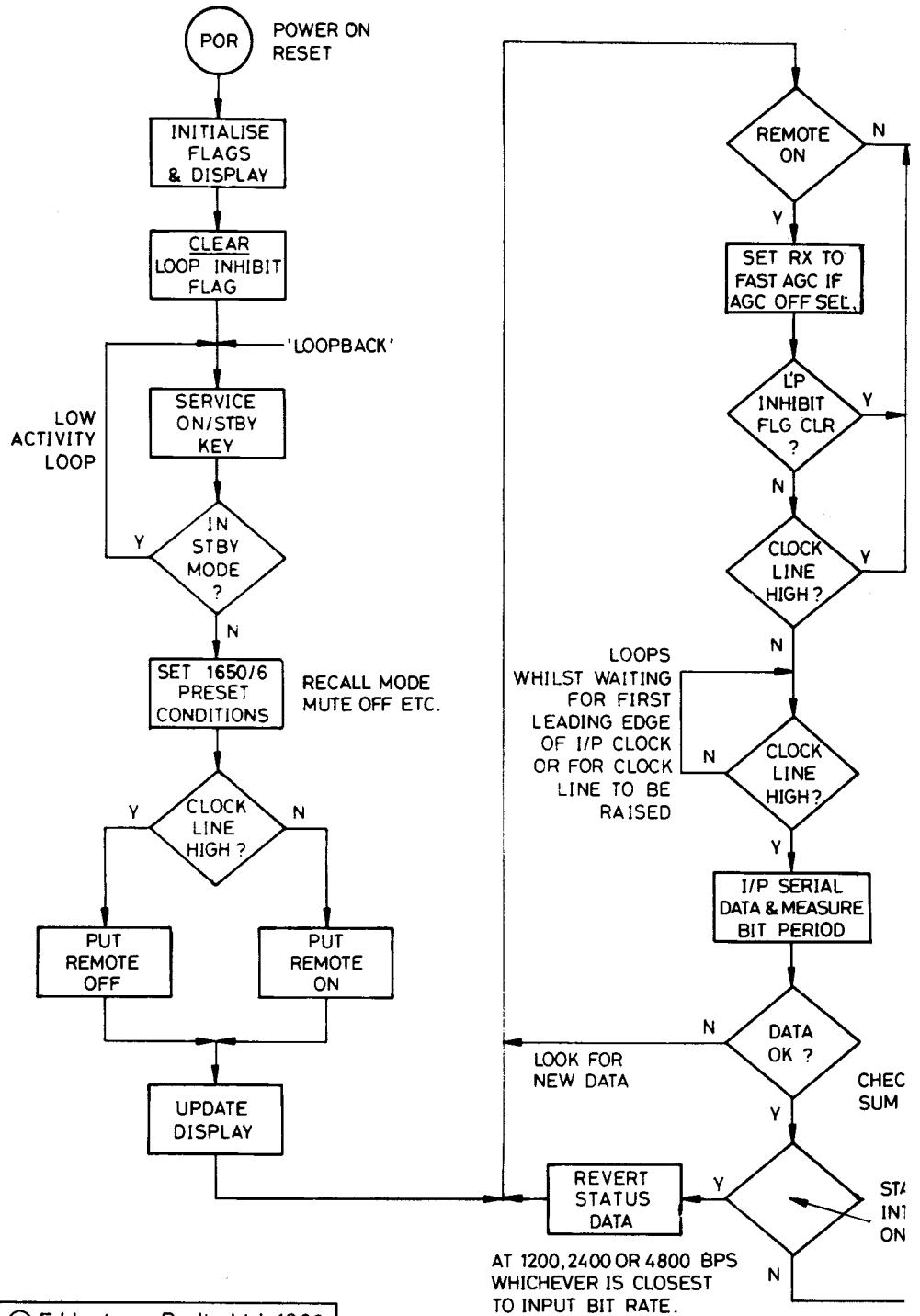
WIDEBAND ON REQD AS FINAL SETTING?
Y: UPDATE RX TO WIDEBAND OFF
N: TAKES 1-2 SECS (WIDEBD ON STILL SELECTED) → TURN TUNING GANG CAP. TO REQD POS. → UPDATE RX TO WIDEBAND OFF

WIDEBAND ON SET ALREADY

SET LOOP INHIBIT FLAG
JUMP TO 'LOOPBACK'

END OF LOOP AFTER VALID FUNCTION SETTING SERIAL INPUT.

1650/6 SIMPLIFIED EXECUTION



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ENGLAND

DRG No **BP2024**

ISSUE 1

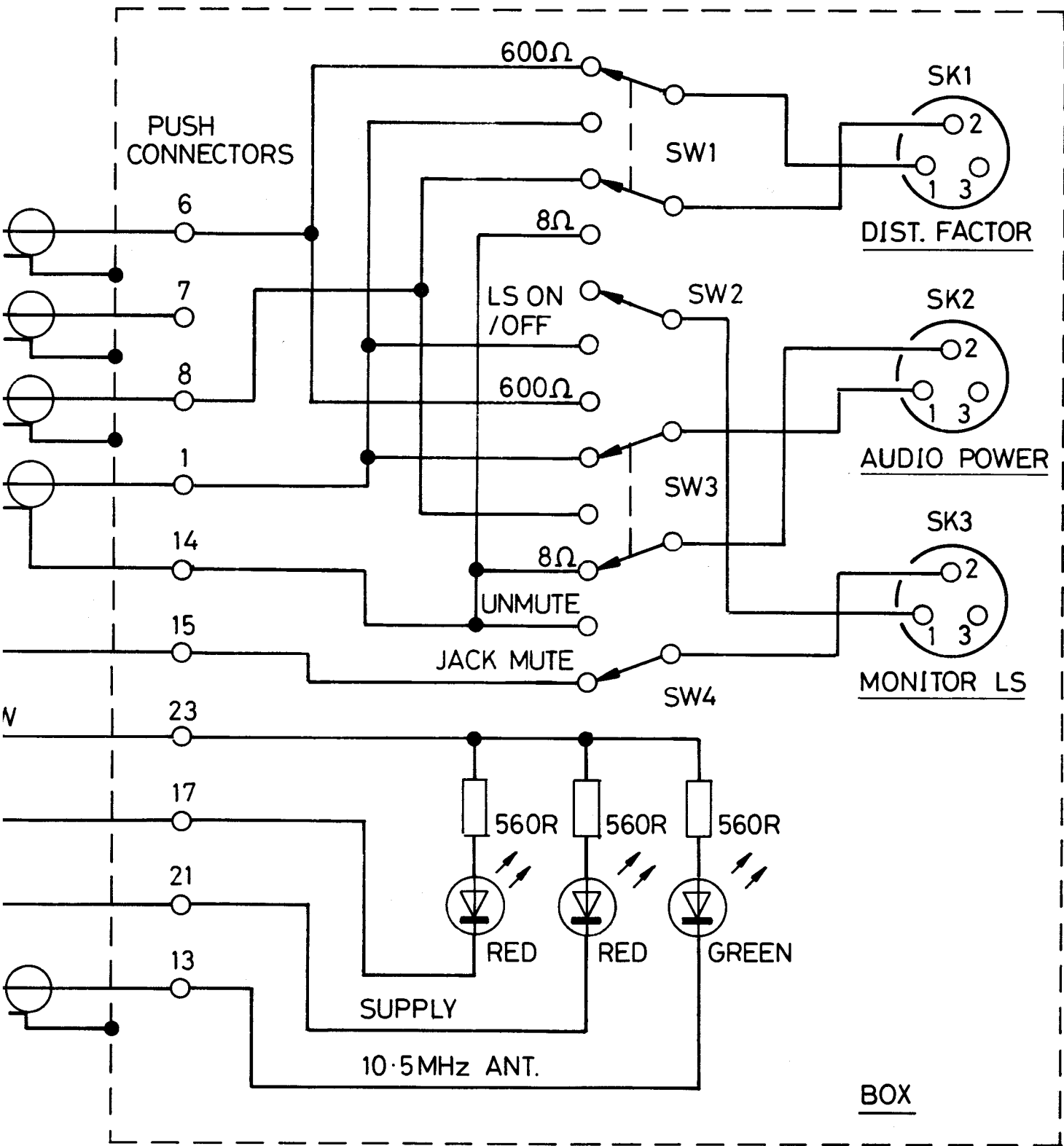
LOOP TIMINGS

APPROX 50ms UNDER REMOTE

.. 60ms AFTER WB OFF,

.. 200ms ON S

.. 2Secs ON S

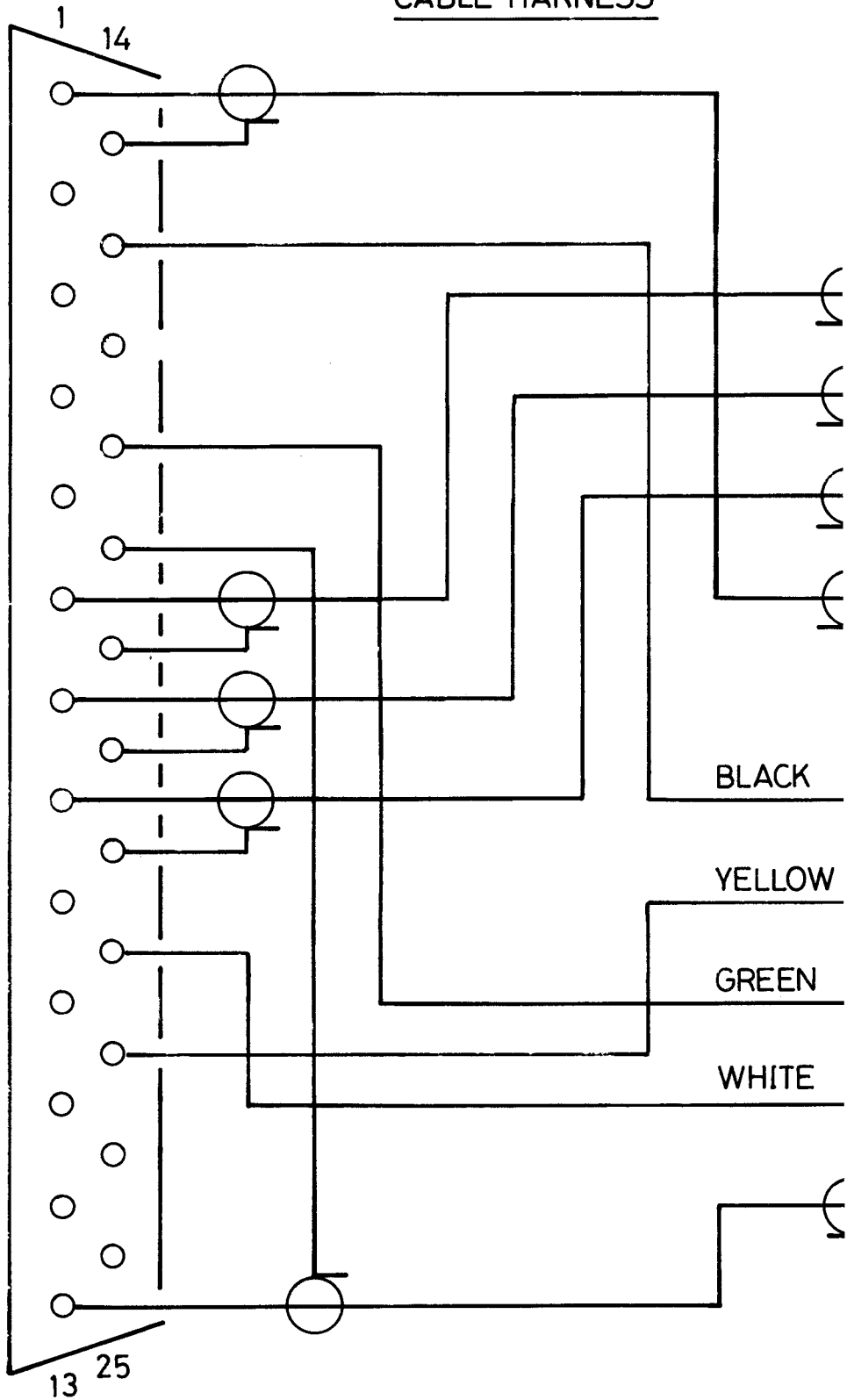


D/6/D6245

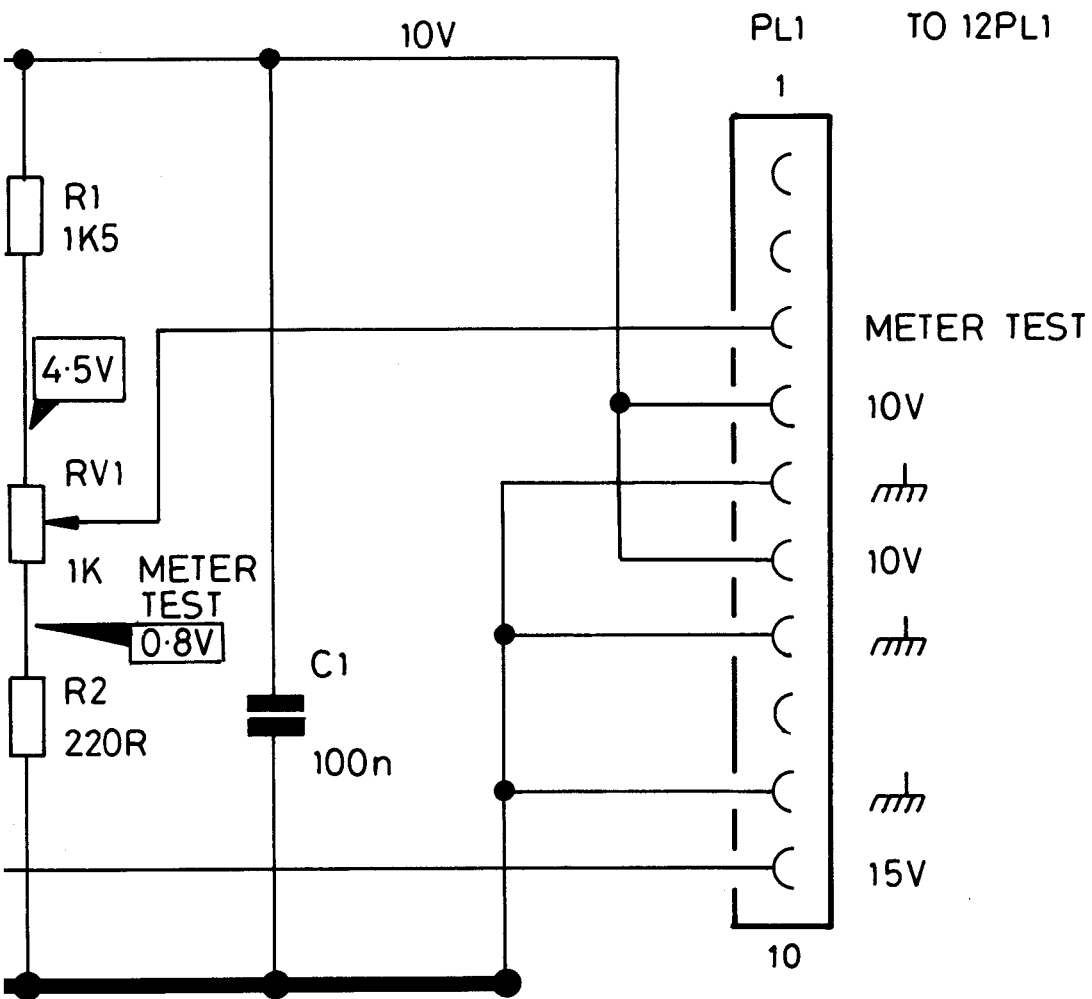
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DRG No	BP2019
ISSUE 1	

CABLE HARNESS

CONNECTOR 25 WAY
'D' MALE VIEW ONTO
SOLDER BUCKETS.

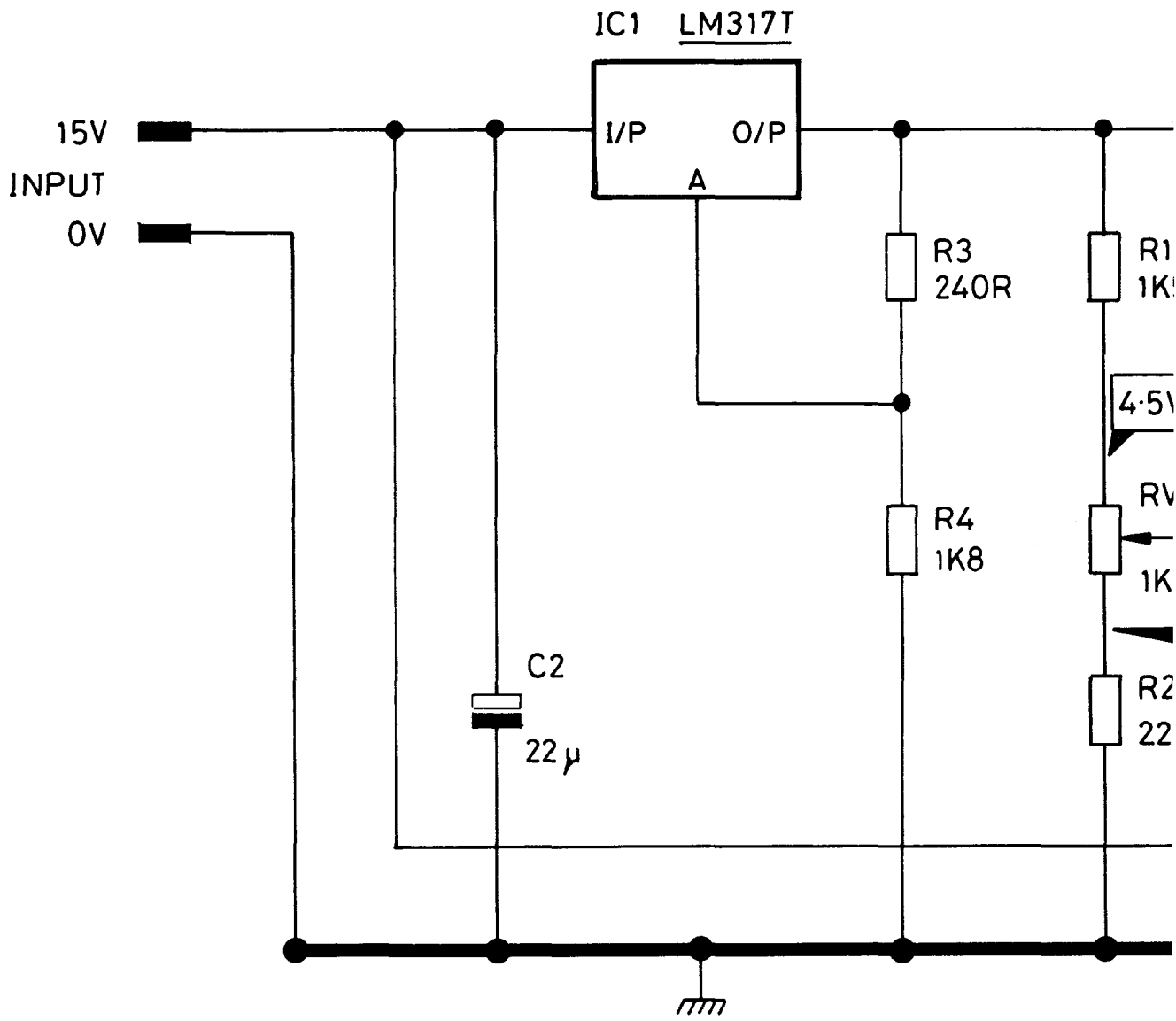


ANCILLARIES TEST BOX WIRING-1650.

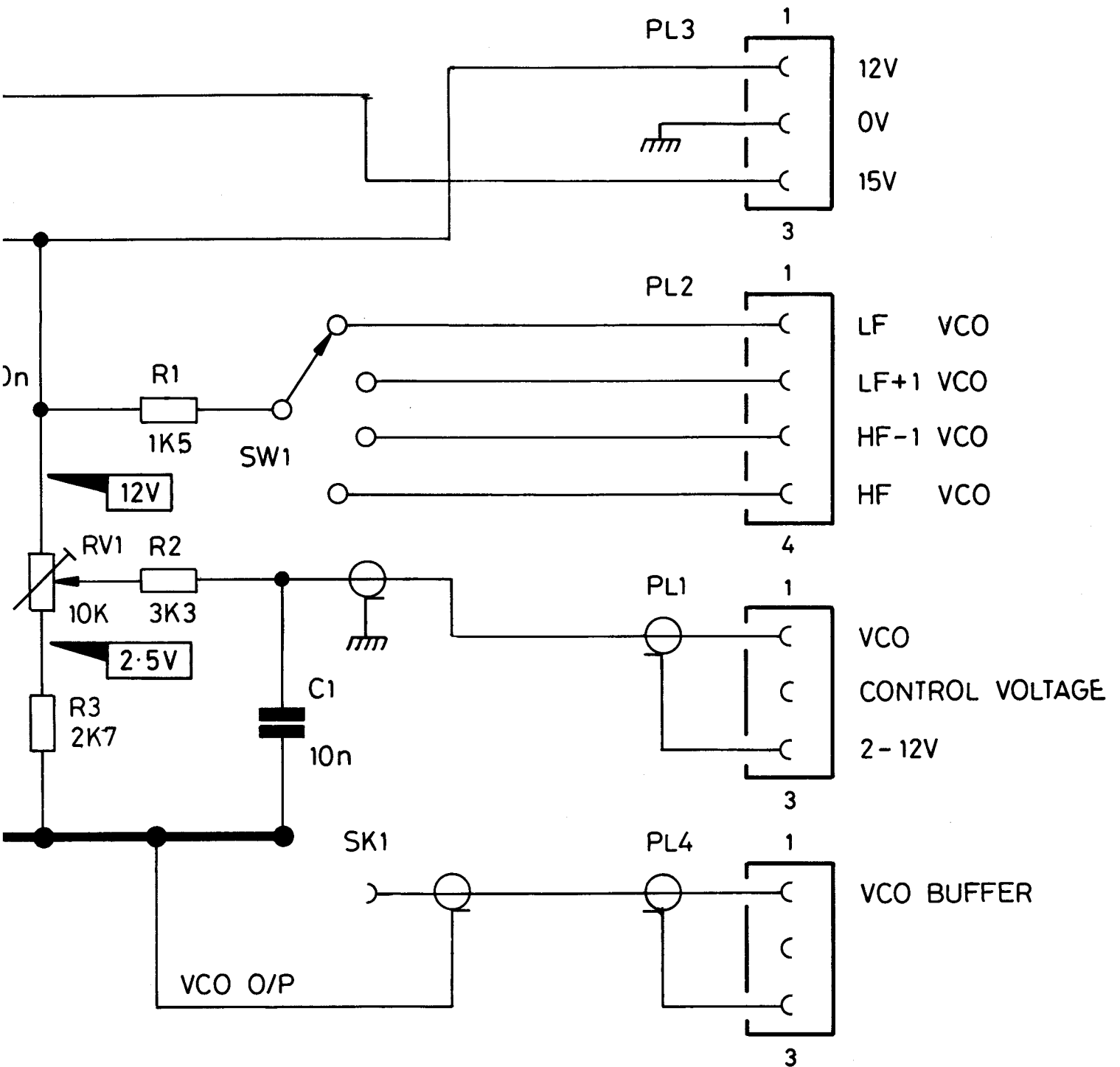


BOX CIRCUIT

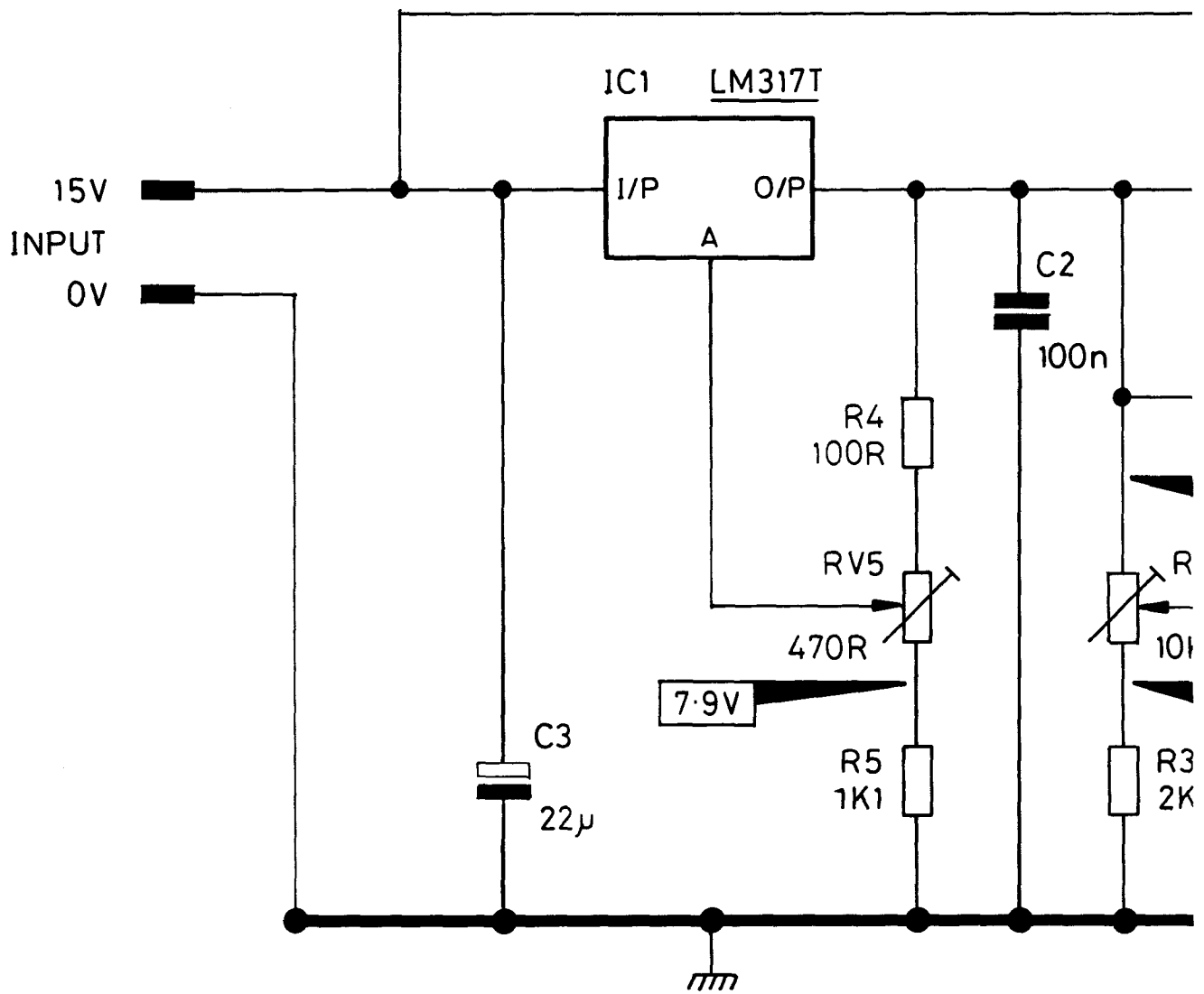
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EDDYSTONE RADIO LTD BIRMINGHAM B31 3PP ENGLAND	
DRG No	BP2038
ISSUE 1	



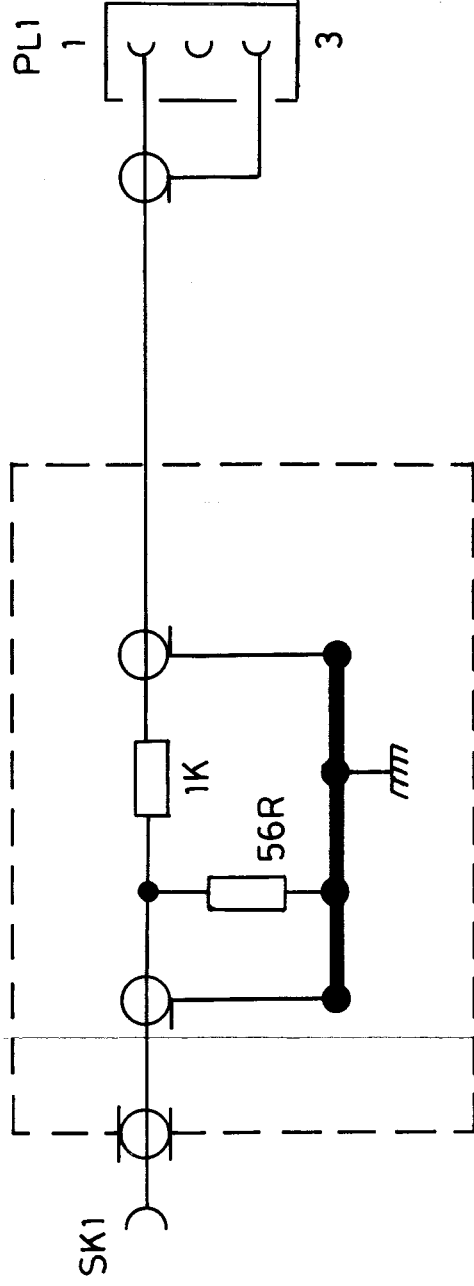
1650/6 / D6247 FRONT PANEL TEST BOX



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DRG No	BP2037
ISSUE 1	



1650/6 / D6248 VCO TEST BOX



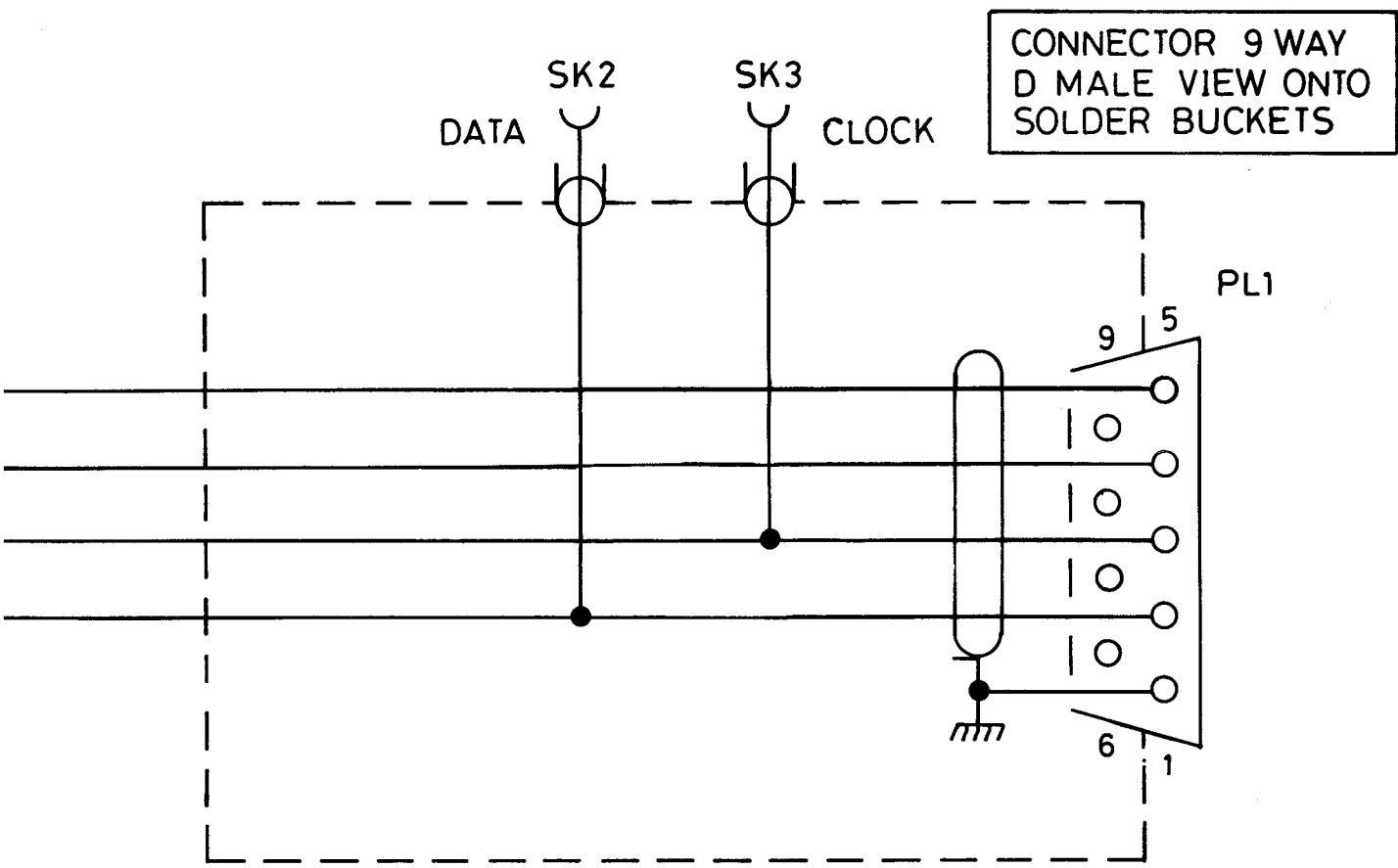
1650/6 / D6249 1.4MHz IF I/P PAD

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ENGLAND

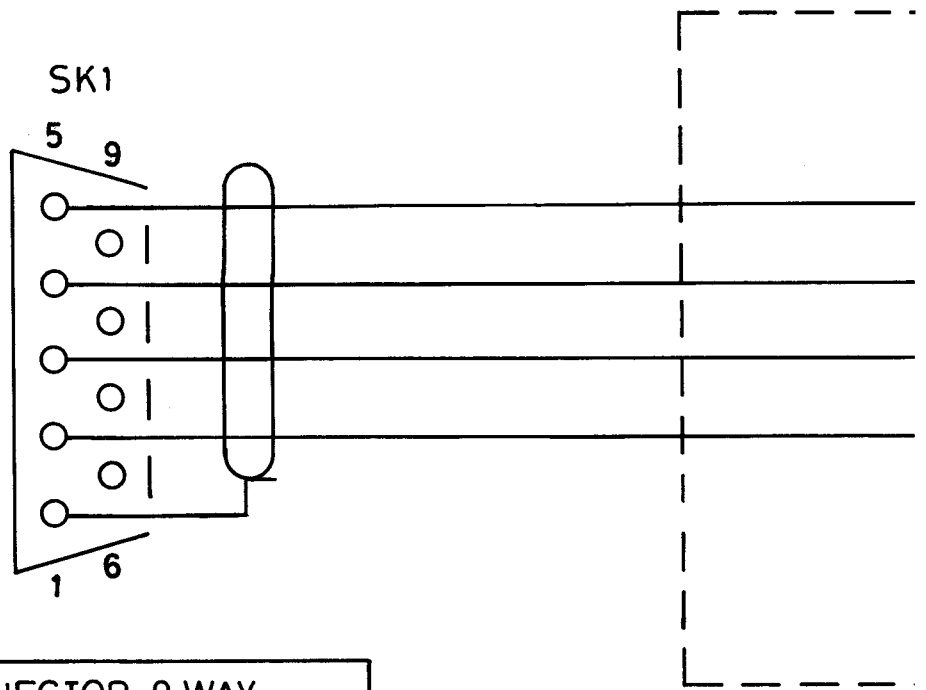
DRG No **BP2039**

ISSUE 1



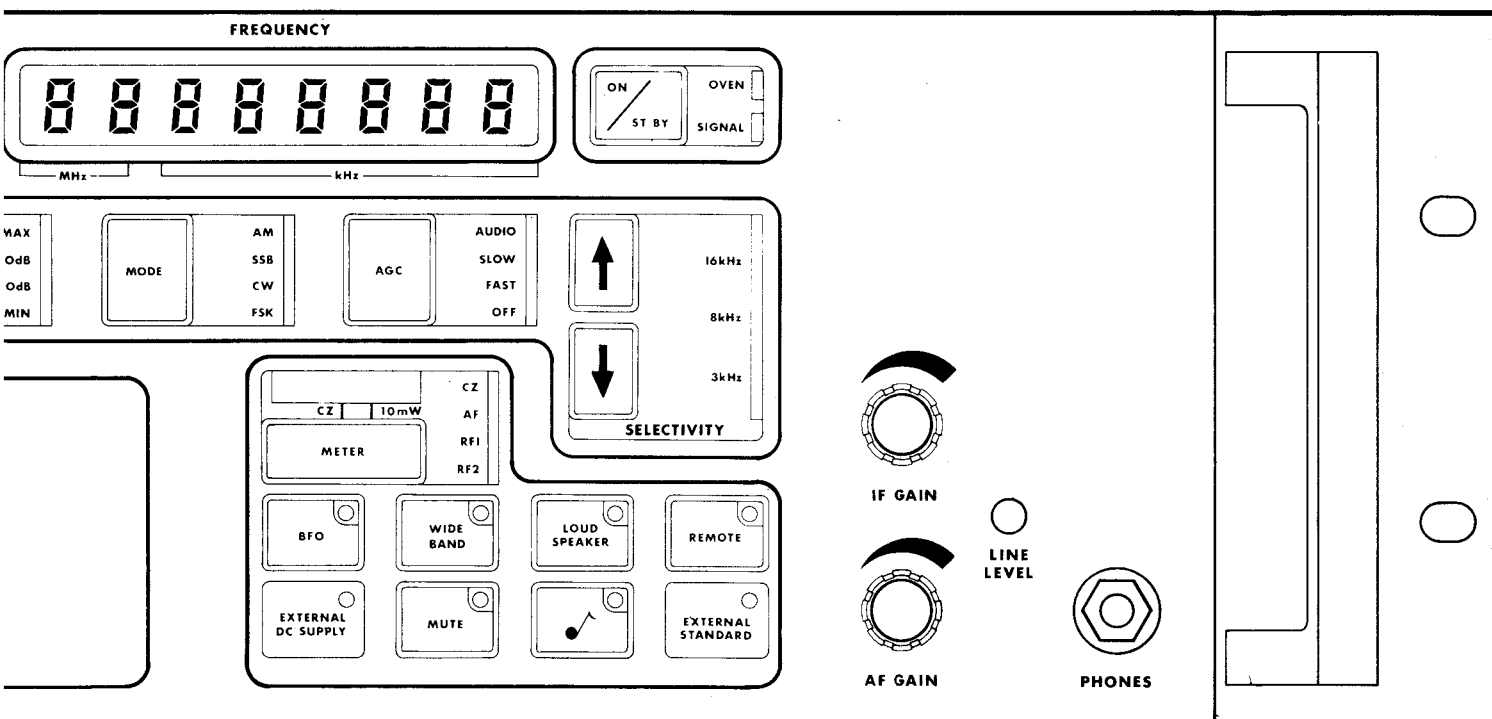
REMOTE BREAKOUT BOX

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DRG No	BP2036
ISSUE 1	

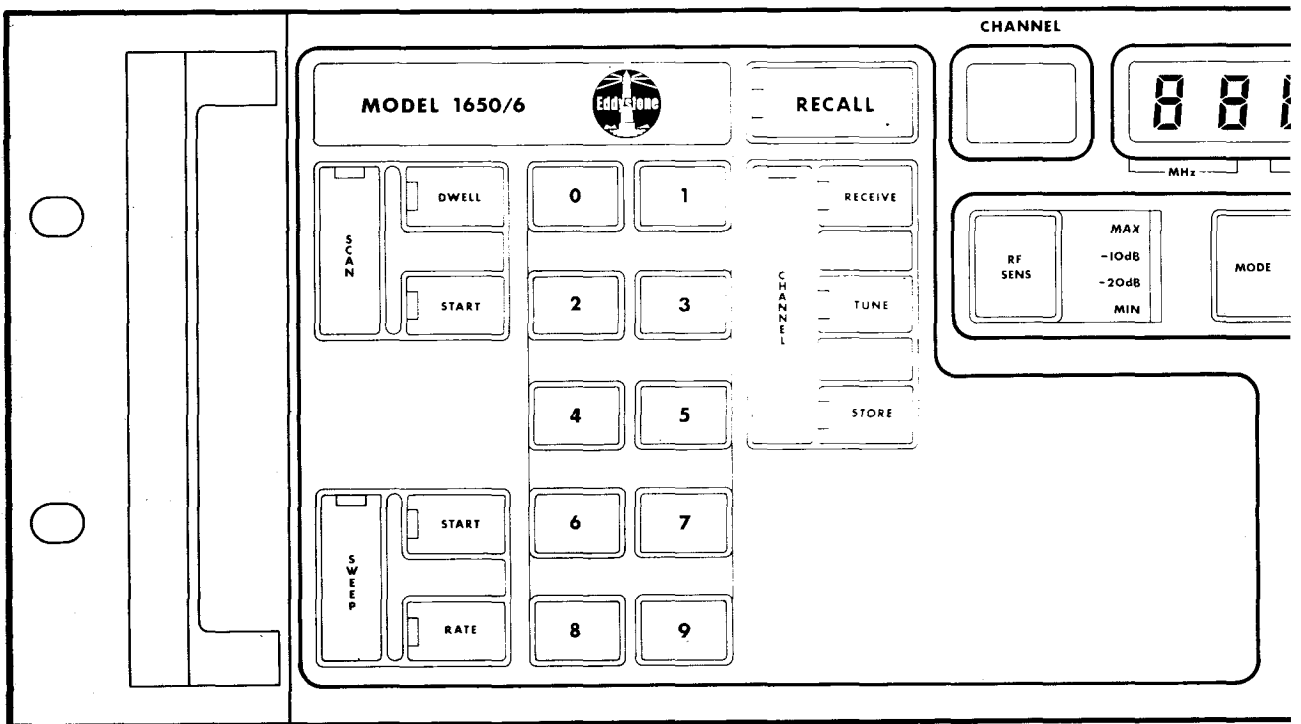


CONNECTOR 9 WAY
D FEMALE VIEW
ONTO SOLDER BUCKETS

1650/6 / D6250 REMOTE BREA

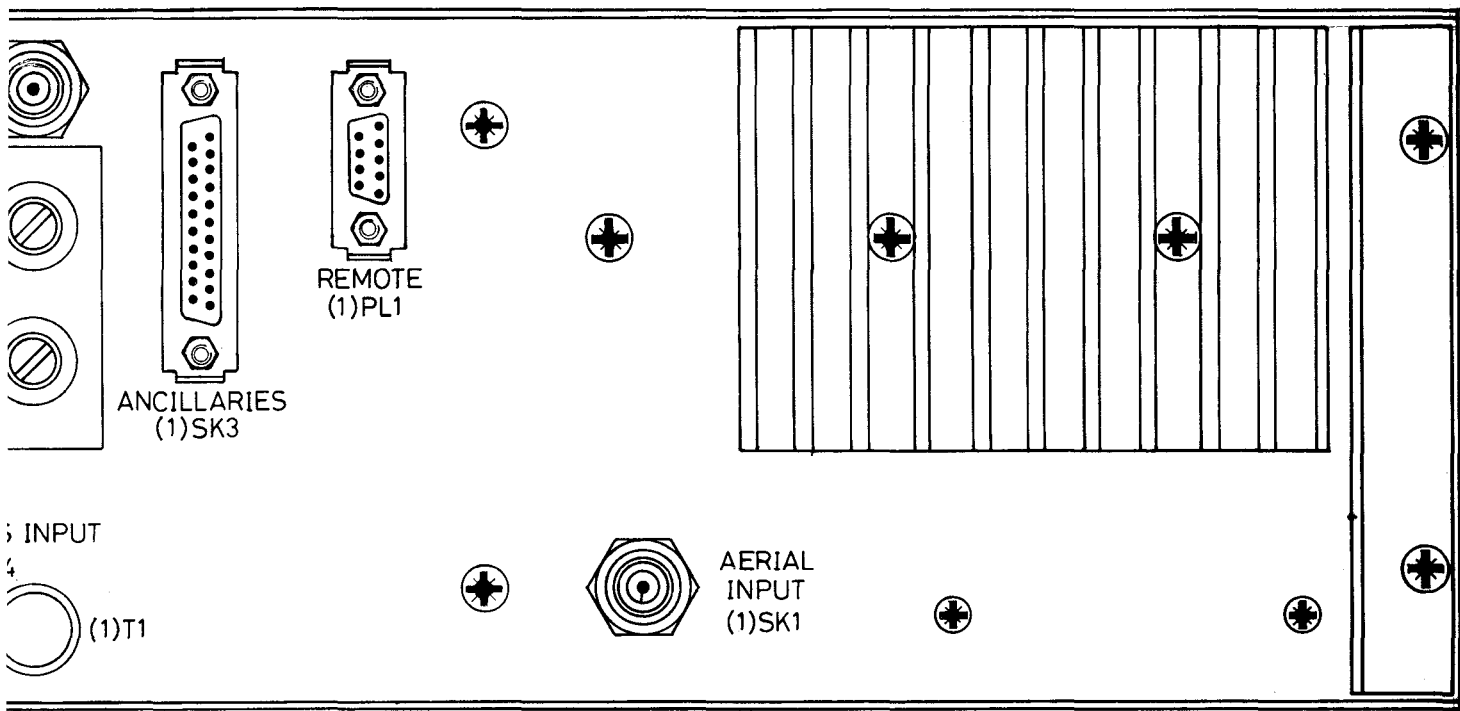


FRONT PANEL LAYOUT



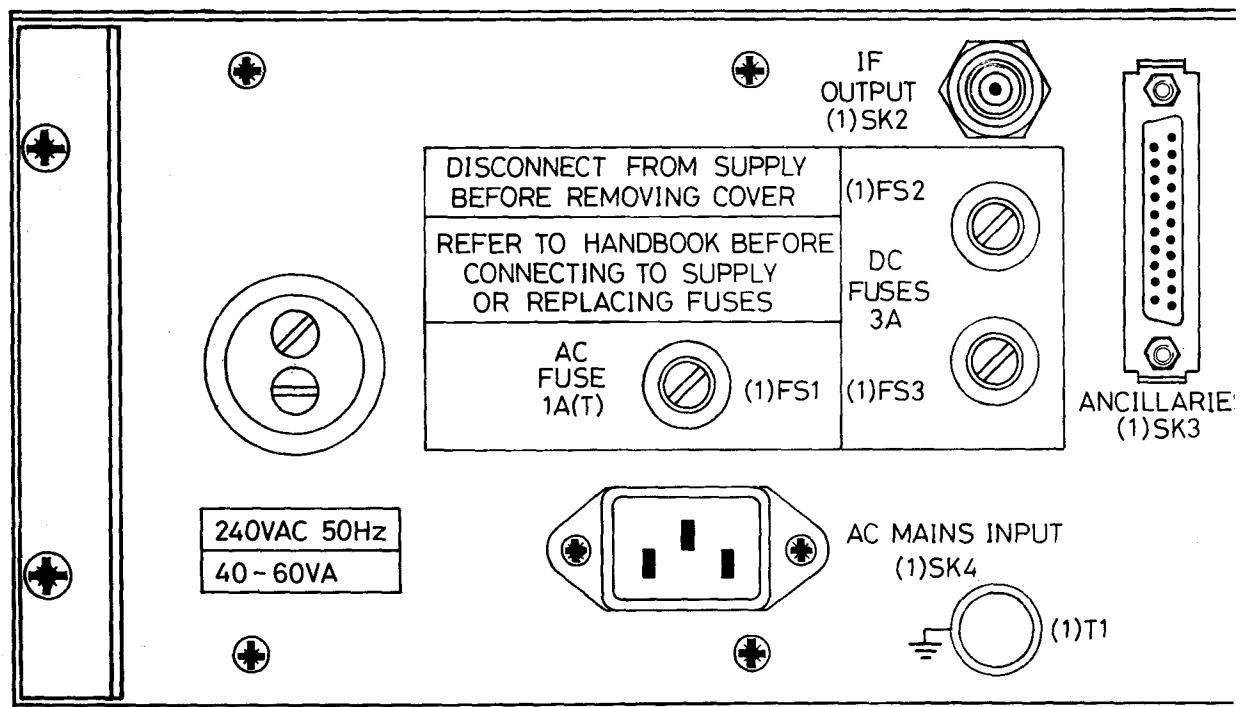
1650/6 RECEIVER FRONT PAI

BP2028



1650/6 RECEIVER REAR PANEL LAYOUT

BP2029



1650/6 RECEIVER RE

BP20