

MEASUREMENT NOTES:-

- ALL AC AND DC VOLTAGES ARE MEASURED WITH RESPECT TO THE NEGATIVE RAIL. VOLTAGES ARE TYPICAL AND MAY VARY BETWEEN UNITS.
- DC VOLTAGES MEASURED WITH 20KΩ/V METER UNDER NO SIGNAL CONDITIONS:-
 - 3-4 RECEIVE AND TRANSMIT MODES.
 - 3 RECEIVE MODE.
 - 3-4 TRANSMIT MODE.
- AC VOLTAGES MEASURED WITH AN OSCILLOSCOPE PROBE 10MΩ AND 12PF OR LOWER, IN SSB USB MODE EXCEPT WHERE INDICATED OTHERWISE:-
 - 650mV Tx TRANSMIT VOLTAGES IN PEAK-PEAK UNITS, WITH A SINGLE TONE APPROX 1KHz 20mVrms APPLIED TO THE MICROPHONE INPUT. THIS CORRESPONDS TO APPROX 10dB OF COMPRESSION IN THE MICROPHONE AMP. A TWO TONE SOURCE WILL GIVE THE SAME PEAK-PEAK MEASUREMENTS.
 - 250μV Rx RECEIVE VOLTAGES EXPRESSED AS EMF FROM A 50Ω SOURCE APPLIED VIA AC COUPLING TO THE POINT INDICATED, WHICH WILL CAUSE THE AGC VOLTAGE AT TP1 TO DECREASE BY 500mV FROM ITS NO SIGNAL VALUE IN THE RECEIVE MODE.
 - 140mV VOLTAGES IN PEAK-PEAK UNITS IN THE RECEIVE AND TRANSMIT MODES.

ISSUE 9
D3 DELETED
C55 WAS 1K
CIR 2534E
26-4-80

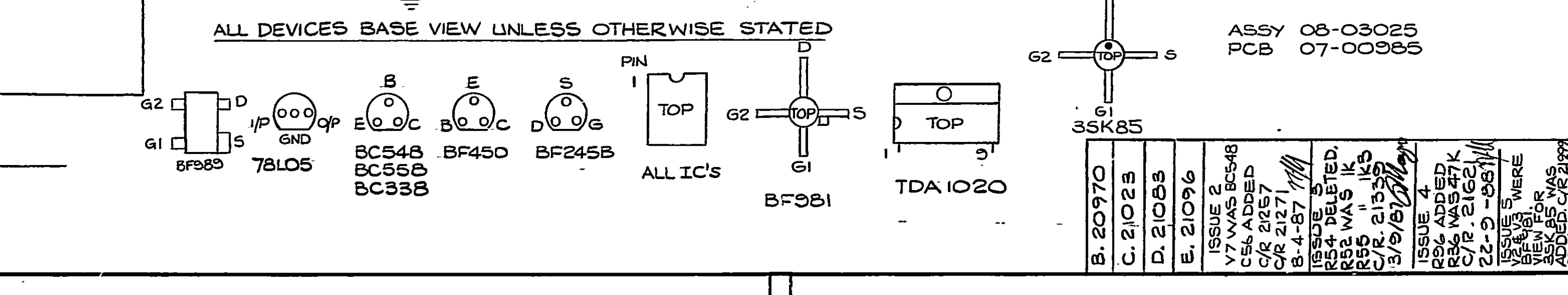
ISSUE 7
C54 WAS 100P
C57 ADDED
CIR 2534D
16-8-80

ISSUE 6
C55 WAS 100N
C55 WAS 100N
WERE 68K
CIR 2534C
29-9-79

ISSUE 5
R2 WAS 470
R6 WAS 50
CIR 2534B
4-3-79

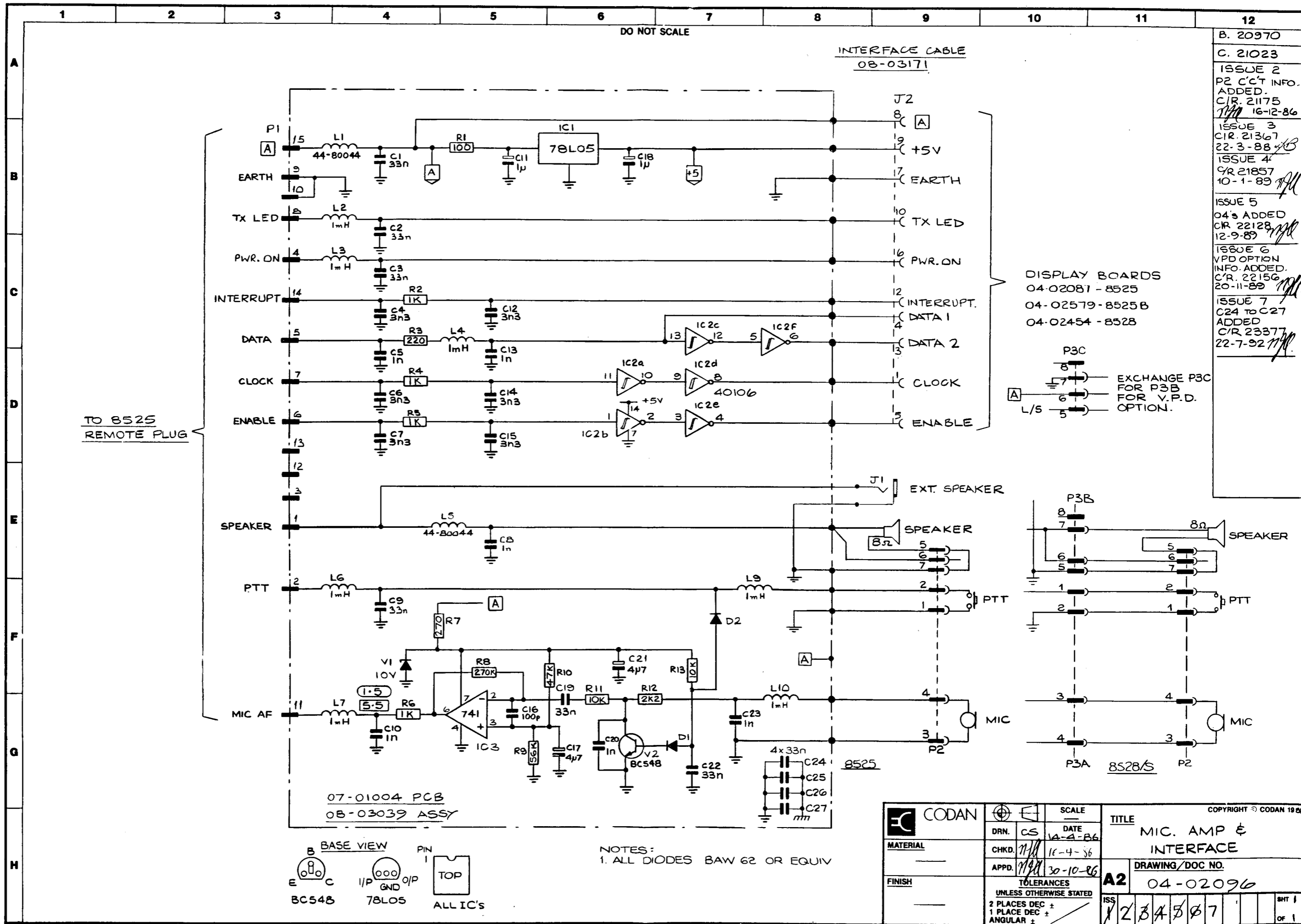
ISSUE 4
R27 ADDED
CIR 2534A
29-9-78

ISSUE 3
R27 ADDED
R28 WAS 470
CIR 2534
17-5-76



NOTES
1. ALL DIODES BAW62 OR EQUIVALENT
2. RESISTORS SHOWN ARE 2%

CODAN		SCALE	TITLE	DATE	ISSUE
DRN.	DO	DATE	17-4-86		
CHKD.		DATE	21-4-86		
APPD.		DATE	30-10-86		
FINISH		TOLERANCES	UNLESS OTHERWISE STATED		
		2 PLACES DEC ±			
		1 PLACE DEC ±			
		ANGULAR ±			
MATERIAL		ISSUE 12			
FINISH		ISSUE 12			
TITLE		AUDIO & IF			
DRAWING/DOC NO.		A1 04-02093			
ISSUE		12			
SHEET		1			

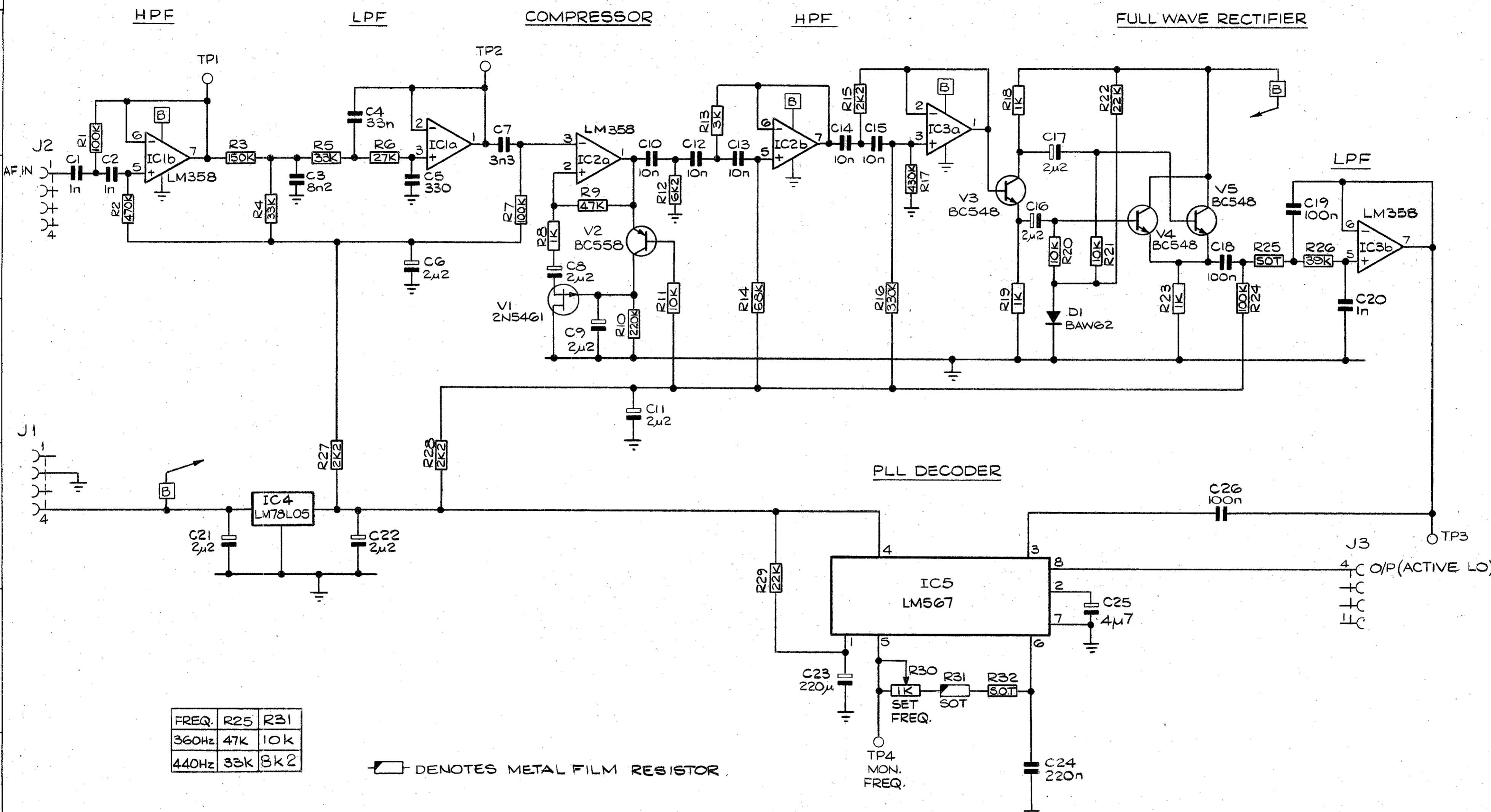


B. 20970
C. 21023
ISSUE 2
P2 C'CT INFO. ADDED.
C/R. 21175
16-12-86
ISSUE 3
C/R. 21367
22-3-88
ISSUE 4
C/R. 21857
10-1-89
ISSUE 5
04's ADDED
C/R. 22128
12-9-89
ISSUE 6
VPD OPTION INFO. ADDED.
C/R. 22156
20-11-89
ISSUE 7
C24 to C27 ADDED
C/R. 23377
22-7-92

CODAN	DRN.	CS	SCALE	TITLE	MIC. AMP & INTERFACE
	CHKD.	M/A	DATE	DRAWING/DOC NO.	
	APPD.	M/A	16-4-86	A2	
FINISH	TOLERANCES UNLESS OTHERWISE STATED			ISS	1 2 3 4 5 6 7
	2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±			BHT	1 OF 1

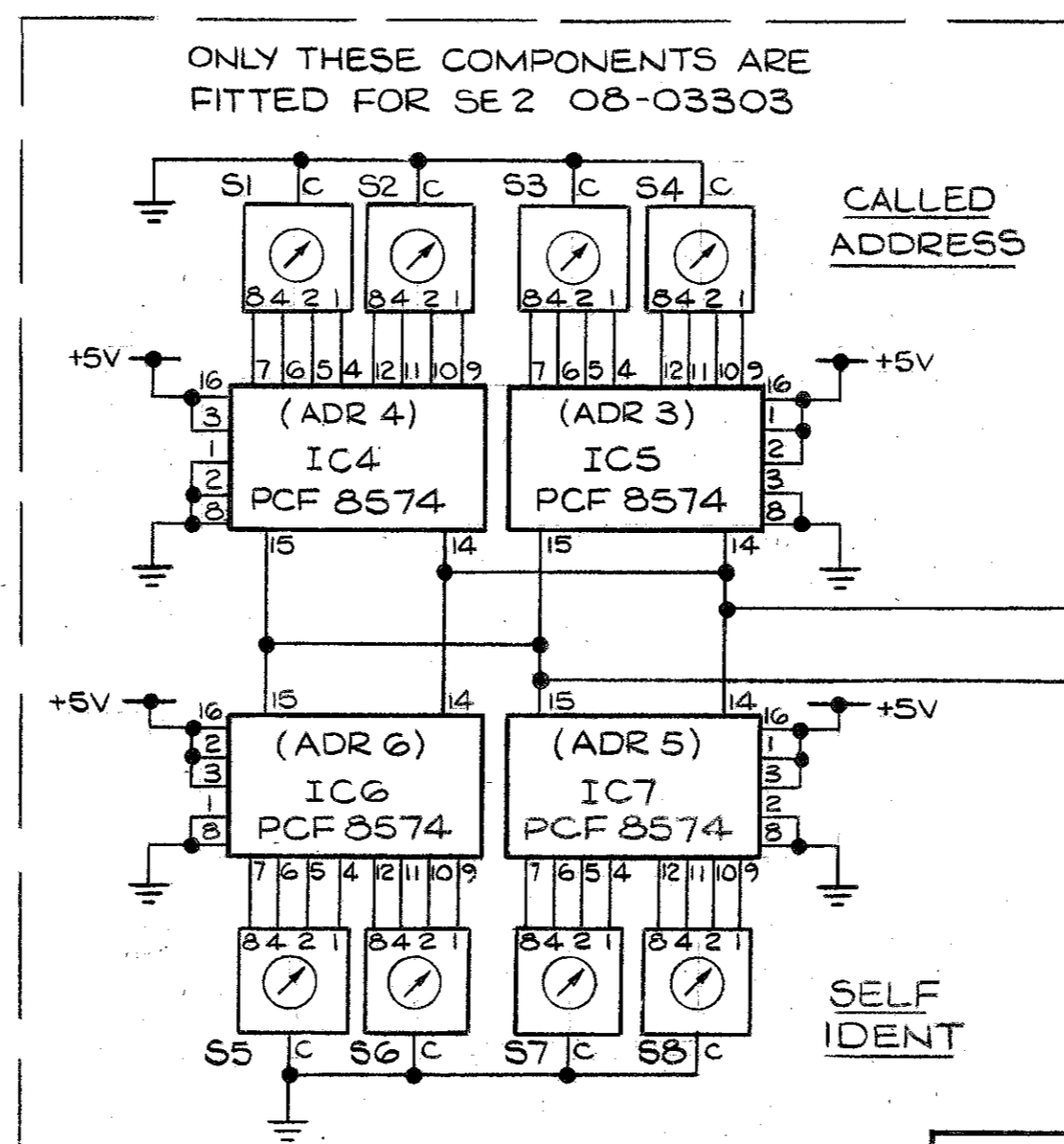
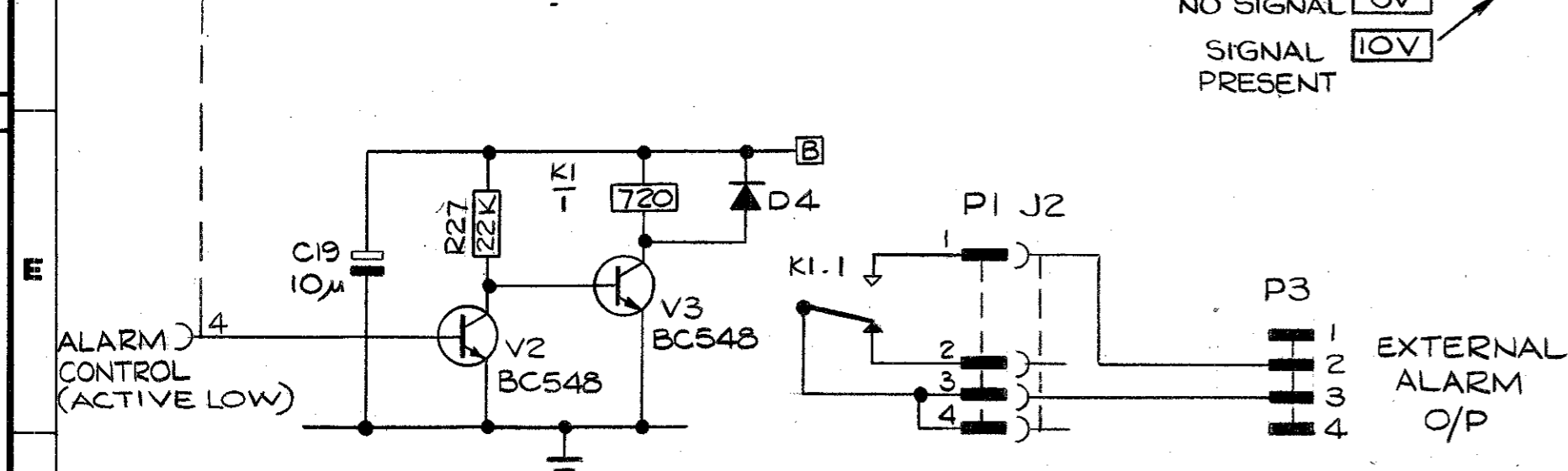
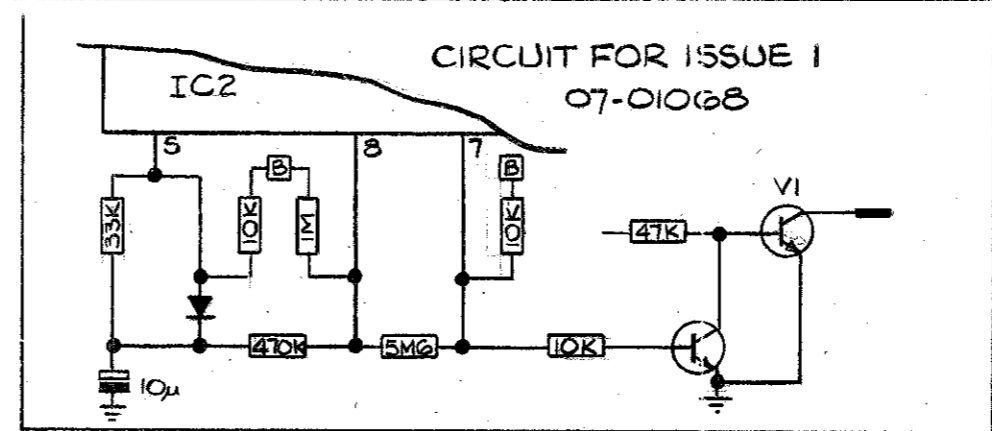
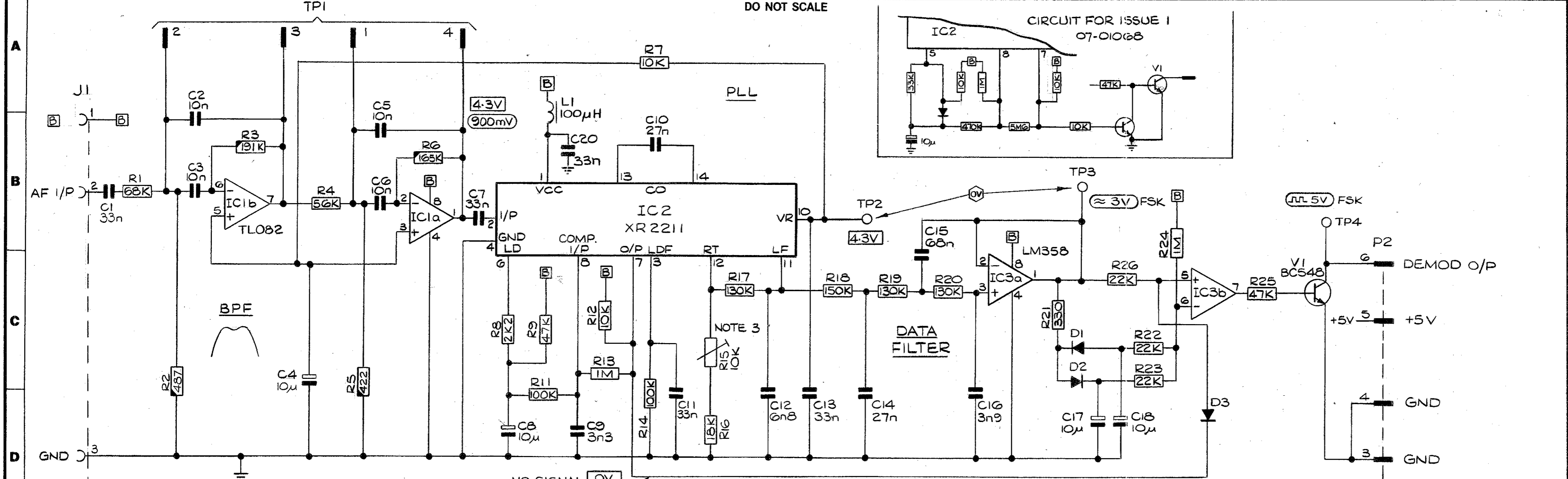
DO NOT SCALE

ISSUE 1
C/R. 21226
10-2-87
ISSUE 2
R26 WAS SOT
R31 " CR25
R25 " 39K
C25 " 47μ
C/R. 21354
14-10-87
ISSUE 3
R16 WAS 270K
C/R. 22276
27/3/90
ISSUE 4
C4 WAS 33n
R5 " 27K
C/R. 22637
27-3-91



PCB. 07-01075
ASSY 08-03273

	DRN.	A.P.J.	DATE	3-9-86	TITLE TWO-TONE DECODER PCB	COPYRIGHT © CODAN 19						
	CHKD.	RCM	10-9-86			DRAWING/DOC NO.						
MATERIAL	APPD.		10-2-87		A2 04-02231	ISS	X	2	\$	4	SHT	
FINISH	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±										OF	



ONLY THESE COMPONENTS FITTED FOR SD
 ALL COMPONENTS ARE FITTED FOR SDE & SDEM
 NOTE: DIGI SWITCHES FOR SDEM ARE FITTED TO FRONT PANEL PCB.

- NOTES:
1. ALL DIODES ARE BAW62 OR EQUIVALENT.
 2. RESISTORS SHOWN ARE 1%
 3. DIFFERENTIAL DC VOLTAGE WITH I/P OF 1775Hz AT IVPP AND ADJUST R15 FOR OV
 4. PP AC VOLTAGE MEASURED WITH I/P OF 1775 Hz AT IVPP.
 5. FSK PPAC VOLTAGE MEASURED WITH FSK I/P AT IVPP
 6. DC VOLTAGE MEASURED WITH NO SIGNAL I/P

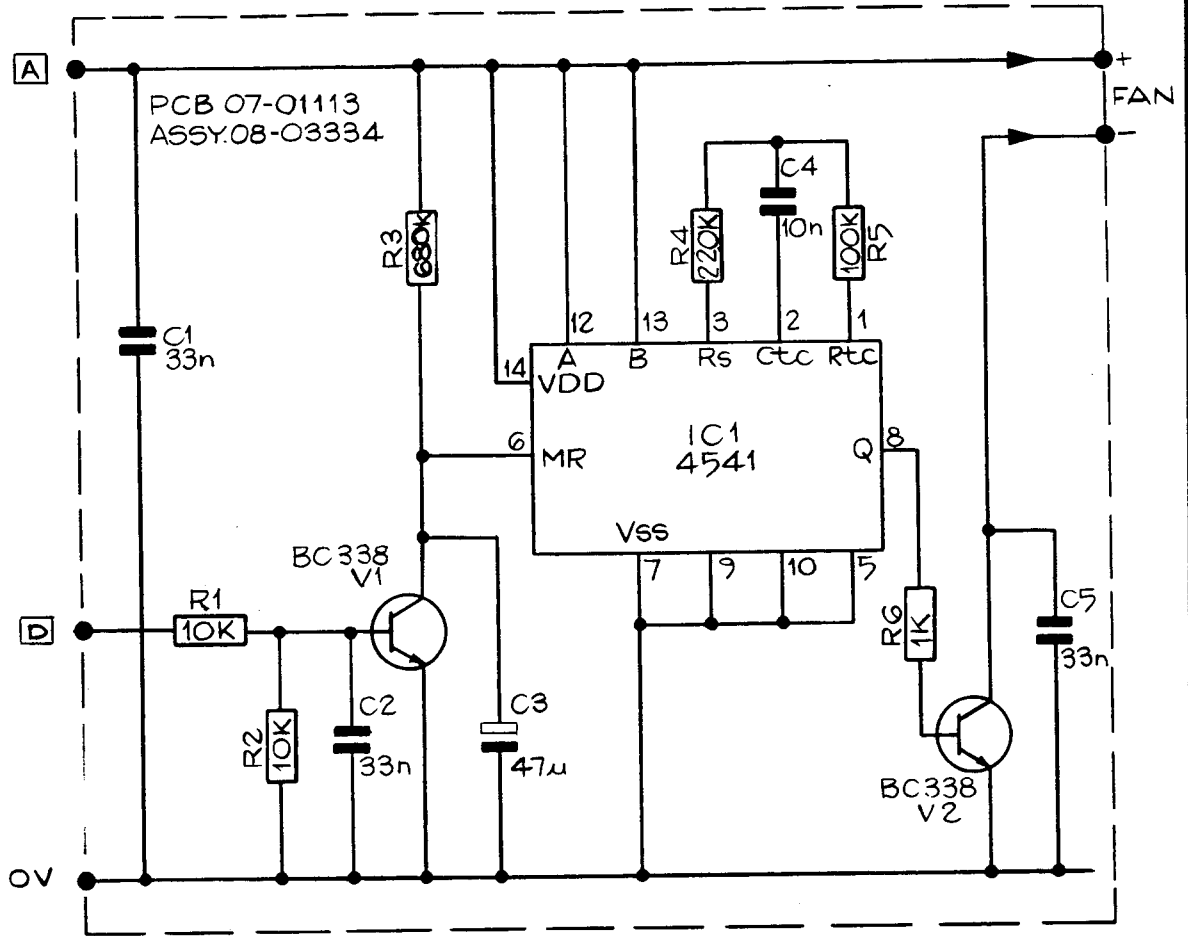
ASSY. 08-03300
 PCB. 07-01068

CODAN	SCALE	TITLE	COPYRIGHT © CODAN 1986	
	DRN. APJ.	DATE 3-11-86	SELECTIVE CALL PCB	
MATERIAL	CHKD. <i>Mayo</i>	12-11-86	DRAWING/DOC NO.	
FINISH	APPD. <i>Mayo</i>	10-2-87	A2 04-02250	
	TOLERANCES UNLESS OTHERWISE STATED		ISS	
2 PLACES DEC ±		1 PLACE DEC ±		SHT
ANGULAR ±		1 2 3 4 5		OF

B.C.I.R. 21202
 ISSUE 1
 C/R. 21226
 10-2-87
 ISSUE 2
 L1 & C20
 ADDED
 C/R. 21339
 3/9/87
 ISSUE 3
 C/R. 21367
 22-3-88
 ISSUE 4
 NOTE ADDED
 C/R. 22128
 12-9-89
 ISSUE 5
 C/R. 22812
 R1 WAS 50K
 R3 WAS 100K
 15-4-91

04-02250

DO NOT SCALE



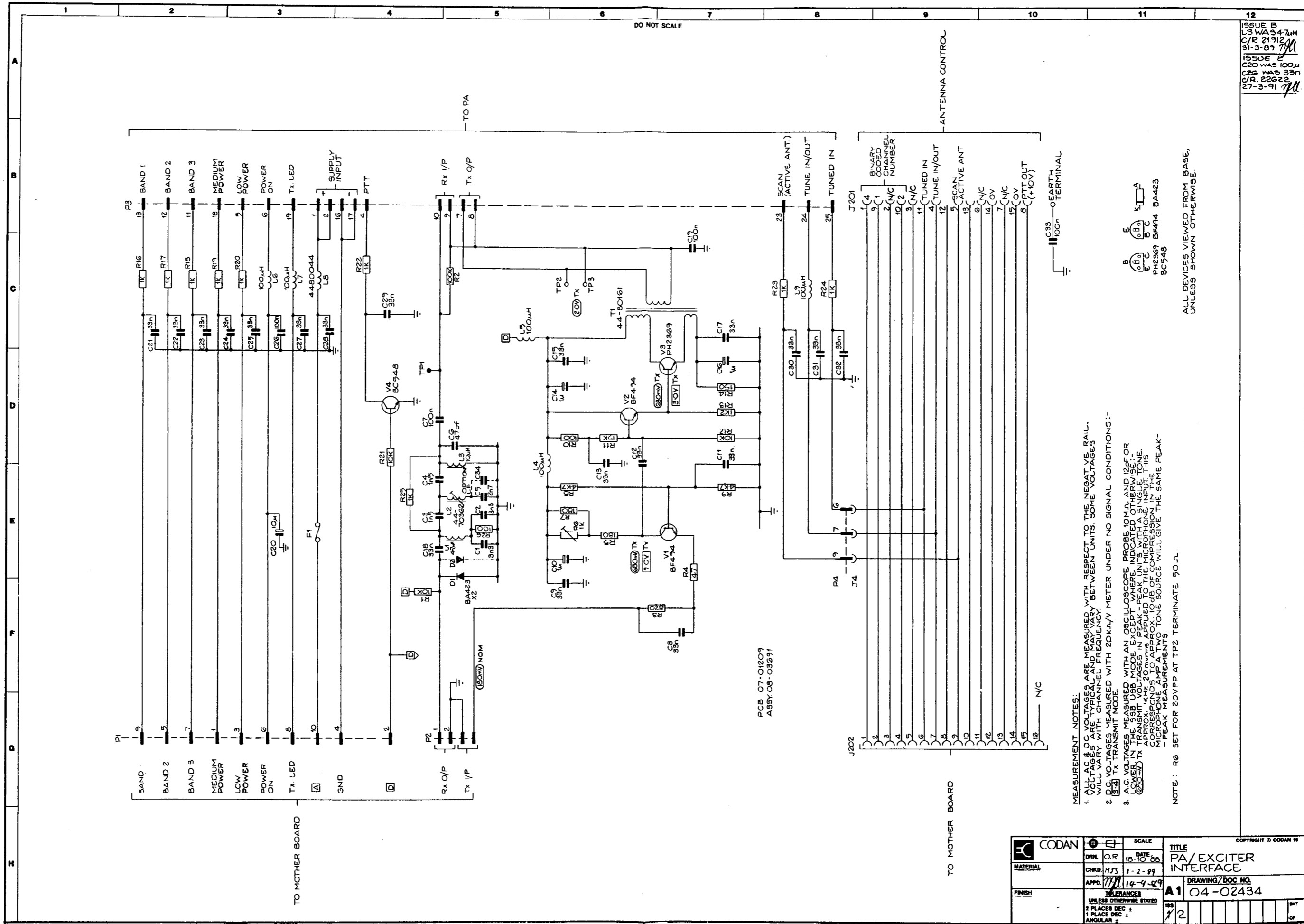
NOTES:

1. OSC. FREQ. ON PIN 1 \approx 435Hz
2. FAN WILL START AFTER 75 SECS. OF CONTINUOUS PTT OR INTERMITTENT PTT (15 SEC MAX. OFF)

ISSUE 3
 P1 DELETED
 CIR 23836
 4-3-94 *bl*

ISSUE 2
 C3 WAS 2u2
 R3 WAS 470K
 NOTE 2 WAS
 500ms
 CIR 23584
 24-2-93 *ml*

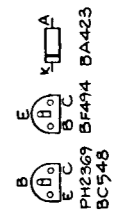
	DRN. O.R. DATE 7-9-88		SCALE TITLE FAN CONTROLLER		COPYRIGHT © CODAN 1991
	CHKD. <i>ml</i> 5-10-88		DRAWING/DOC NO. A4 04-02260		
MATERIAL	APPD. <i>ml</i> 14-9-89		ISS 1 2 3		SHT 1 OF 1
FINISH	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±				



MEASUREMENT NOTES:

1. ALL AC & DC VOLTAGES ARE MEASURED WITH RESPECT TO THE NEGATIVE RAIL. VOLTAGES ARE CHAINED BETWEEN UNITS. SOME VOLTAGES WILL VARY WITH CHANNEL FREQUENCY.
2. ALL VOLTAGES MEASURED WITH 20k Ω /V METER UNDER NO SIGNAL CONDITIONS:-
 (a) TX TRANSMIT MODE
 (b) TX TRANSMIT MODE
 (c) TX TRANSMIT MODE
3. A.C. VOLTAGES MEASURED WITH AN OSCILLOSCOPE PROBE 10M Ω AND 12PF OR LOWER IN THE 50 Ω TERMINATION. INDICATED ON THE WAVEFORM IN THE 50 Ω TERMINATION. PEAK-TO-PEAK VOLTAGE APPROX. 1.4KHZ 20Vrms APPLIED TO THE MICROPHONE INPUT. THIS CORRESPONDS TO APPROX. 10dB OF COMPRESSION IN THE MICROPHONE AMP AT TWO TONE SOURCE WILL GIVE THE SAME PEAK-TO-PEAK MEASUREMENTS.

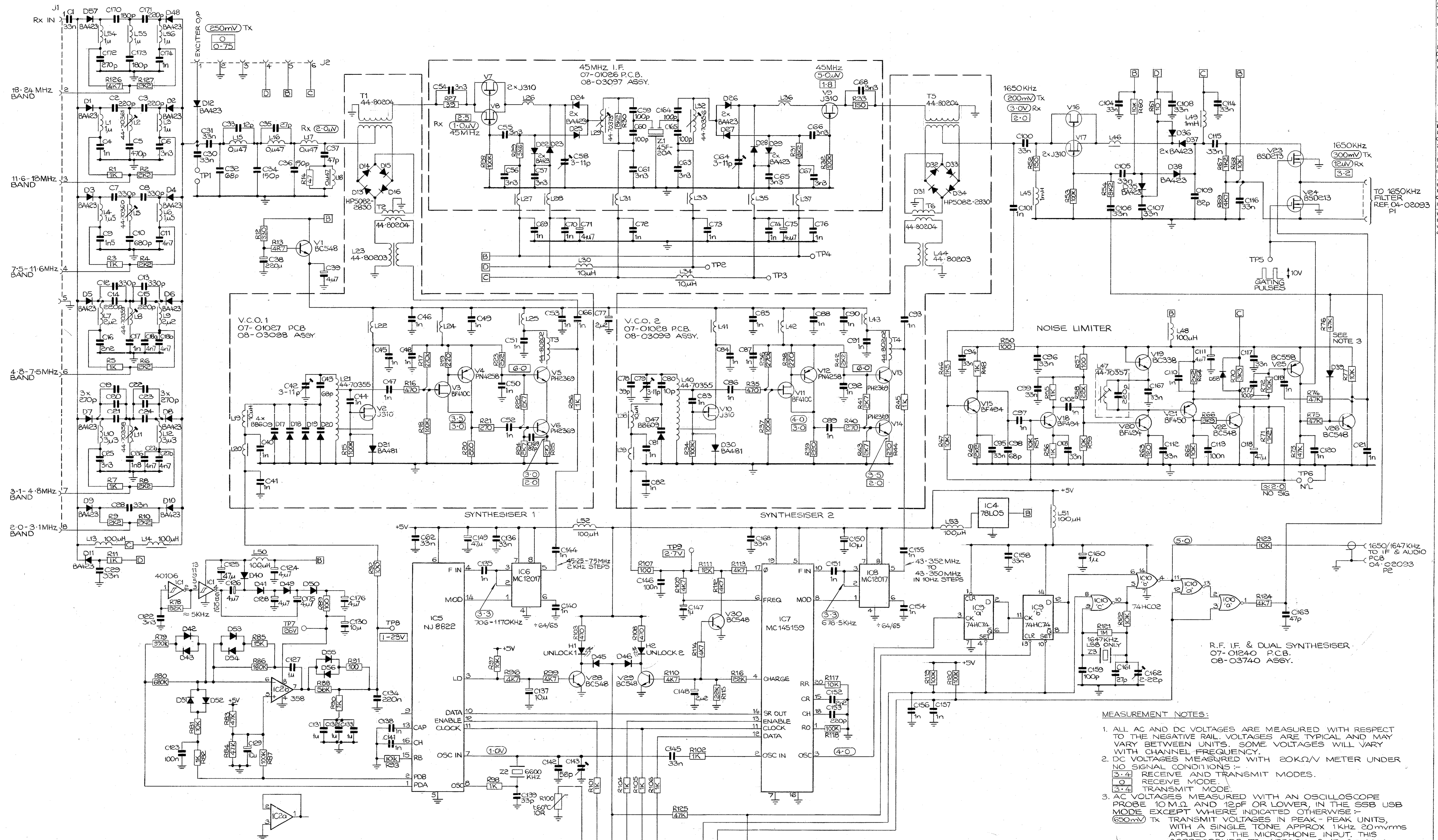
NOTE: R0 SET FOR 20VPP AT TP2 TERMINATE 50 Ω .



ALL DEVICES VIEWED FROM BASE, UNLESS SHOWN OTHERWISE.

ISSUE B
 L3 WAS 3474H
 C/R 21312
 31-3-89
 ISSUE 2
 C20 WAS 100n
 C26 WAS 33n
 C/R 22622
 27-3-91

CODAN		SCALE	TITLE	COPYRIGHT © CODAN 19	
MATERIAL	DRN. O.R.	15-10-88	PA/EXCITER INTERFACE		
CHKD. MJS	APPD. MJS	1-2-89	DRAWING/DOC NO.		
FINISH	TOLERANCES	UNLESS OTHERWISE STATED	A1	04-02434	
2 PLACES DEC ±		1 PLACE DEC ±	ISS		
ANGULAR ±			1/2		



ISSUE B
 R79 WAS 100K
 C12 WAS 50p
 C34 WAS 100p
 C92 WAS 4.7u
 C15 2.2K
 6-7-89 7/11

ISSUE C
 L17 WAS C122
 C32 WAS 50p
 C34 WAS 100p
 C92 WAS 4.7u
 C15 2.2K
 6-7-89 7/11

ISSUE D
 C160 WAS 33n
 C17 2.2K
 30-8-89

ISSUE 2
 R37 WAS D47
 D50 WAS 33n
 C12 WAS 68p
 C18 2.2K
 15-11-89 7/11

ISSUE 3
 C122 22K
 R66 DELETED
 TPE VOLTAGE
 (WAS 2.5)
 31-1-90 7/11

ISSUE 4
 D48 ADDED
 C17 2.2K
 27-8-90 7/11

ISSUE 5
 R175 WAS 22k
 C18 2.2K
 7-12-91 7/11

ISSUE 6
 R27 WAS 150
 C18 2.2K
 15-2-93 7/11

ISSUE 7
 IC9B pin 13
 WAS pin 5
 C18 2.2K
 2-12-93 7/11

TO 1650KHZ
 FILTER
 REF. 04-02093
 P1

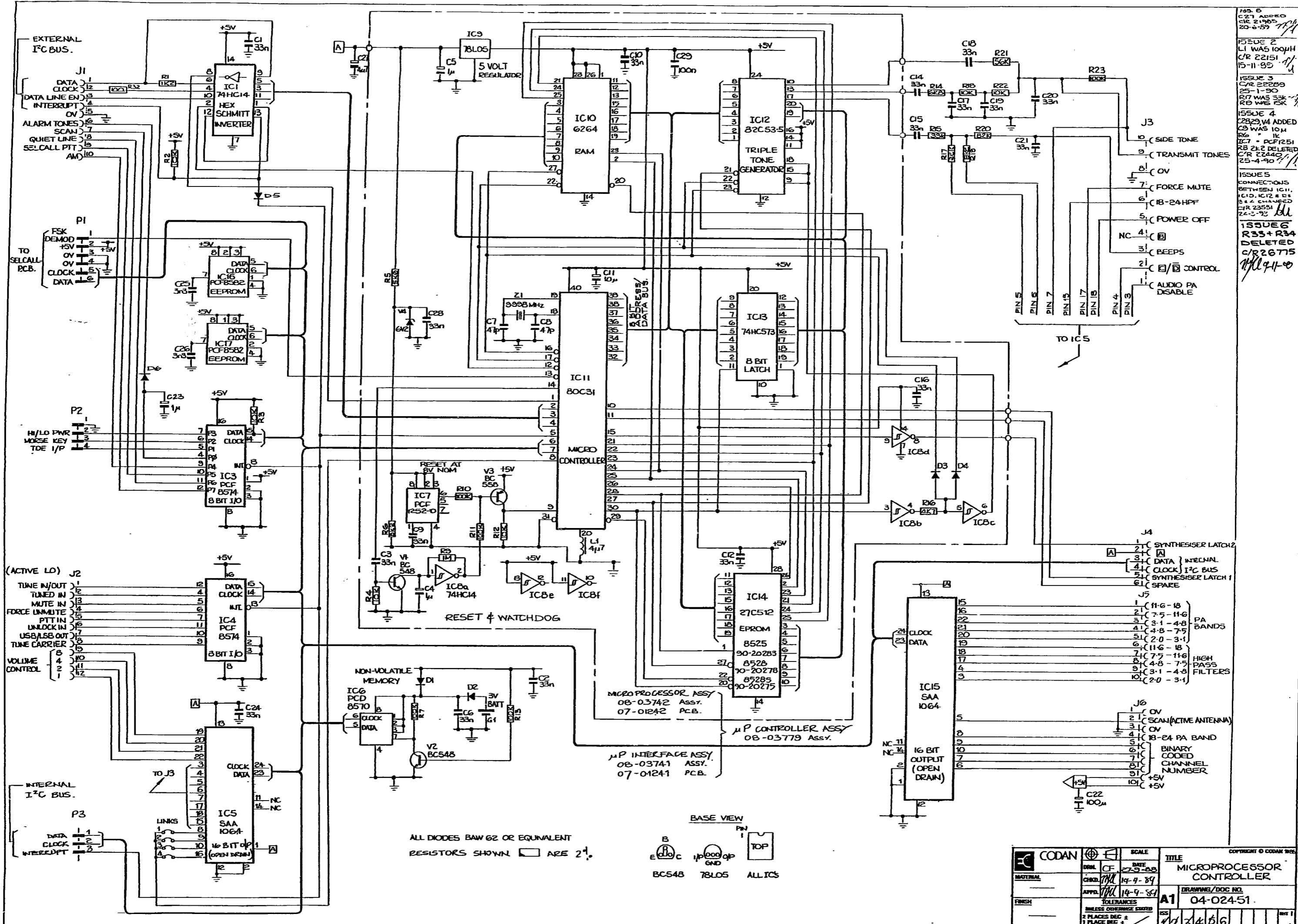
04-02450

- ALL DEVICES VIEWED FROM BASE, UNLESS SHOWN OTHERWISE
- | | | | | | | |
|------|-------|-------|--------|-------|-----------------|-------|
| J310 | BF400 | BC548 | PN4258 | BF450 | BSD213 ALL IC'S | BAW62 |
| J310 | BF400 | BC548 | PN4258 | BF450 | BSD213 ALL IC'S | BAW62 |
| J310 | BF400 | BC548 | PN4258 | BF450 | BSD213 ALL IC'S | BAW62 |
- Pin symbols: PIN, TOP, GND, D.C., E.C., C.B.E., G.O.S., S.B.S.

- NOTES
- ALL DIODES ARE BAW62 OR EQUIVALENT UNLESS OTHERWISE STATED.
 - ALL UNMARKED INDUCTORS ARE FERRITE BEADS.
 - DELETE R76 FOR 85285
 - COMPONENTS NOT PRESENT :- R94 IC3 R95

MEASUREMENT NOTES:

- ALL AC AND DC VOLTAGES ARE MEASURED WITH RESPECT TO THE NEGATIVE RAIL. VOLTAGES ARE TYPICAL AND MAY VARY BETWEEN UNITS. SOME VOLTAGES WILL VARY WITH CHANNEL FREQUENCY.
- DC VOLTAGES MEASURED WITH 20KΩ/V METER UNDER NO SIGNAL CONDITIONS :-
 (3.4) RECEIVE AND TRANSMIT MODES.
 (1.0) RECEIVE MODE.
 (3.4) TRANSMIT MODE.
- AC VOLTAGES MEASURED WITH AN OSCILLOSCOPE PROBE 10 MΩ AND 12pF OR LOWER, IN THE SSB USB MODE EXCEPT WHERE INDICATED OTHERWISE :-
 (50mV) TX TRANSMIT VOLTAGES IN PEAK-PEAK UNITS, WITH A SINGLE TONE APPROX 1KHz 20mVrms APPLIED TO THE MICROPHONE INPUT. THIS CORRESPONDS TO APPROX 10 dB OF COMPRESSION IN THE MICROPHONE AMP. TWO TONE SOURCE WILL GIVE THE SAME PEAK-PEAK MEASUREMENTS.
 (250mV) RX RECEIVE VOLTAGES EXPRESSED AS EMF FROM A 50Ω SOURCE APPLIED VIA AC COUPLING TO THE POINT INDICATED, WHICH WILL CAUSE THE AVG VOLTAGE AT TPI ON THE AUDIO & 1650 IF. P.C.B. TO DECREASE BY 500mV FROM ITS NO SIGNAL VALUE IN THE RECEIVE MODE.
 (140mV) VOLTAGES IN PEAK-PEAK UNITS IN THE RECEIVE AND TRANSMIT MODES.



ISSUE 2
C27 ADDED
C/R 21905
20-6-89

ISSUE 3
C/R 22208
25-1-90
R7 WAS 53K
R9 WAS 15K

ISSUE 4
C28, V4 ADDED
C9 WAS 10M
R6 " 1K
IC7 - PCF8582
R8 2K2 DELETED
C/R 22440
25-4-90

ISSUE 5
CONNECTIONS
BETWEEN IC11,
IC10, IC12 & IC1
B & C CHANGED
C/R 23551
22-3-92

ISSUE 6
R33 + R34
DELETED
C/R 26715
11/1/94

EXTERNAL I²C BUS.
J1
DATA 1
CLOCK 2
DATA LINE EN 3
INTERRUPT 4
OV 5
ALARM TONES 6
SCAN 7
QUIET LINE 8
SEL CALL PTT 9
AM 10

TO SELCALL PCB.
P1
FSK DEMOD 1
+5V 2
OV 3
CLOCK 4
DATA 5

H/LD PWR MORSE KEY TDE I/P
P2
1
2
3
4

(ACTIVE LD) J2
TUNE IN/OUT 1
TUNED IN 2
MUTE IN 3
FORCE UNMUTE 4
PTT IN 5
UNLOCK IN 6
USB/LSB OUT 7
TUNE CARRIER 8
VOLUME CONTROL 9
10
11
12

INTERNAL I²C BUS.
P3
DATA 1
CLOCK 2
INTERRUPT 3

J3
10 (SIDE TONE)
9 (TRANSMIT TONES)
8 (OV)
7 (FORCE MUTE)
6 (18-24 HPF)
5 (POWER OFF)
NC 4
3 (BEEPS)
2 (CONTROL)
1 (AUDIO PA DISABLE)

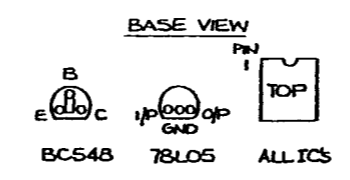
TO IC5
PIN 5
PIN 6
PIN 7
PIN 15
PIN 17
PIN 18
PIN 19
PIN 4
PIN 3

J4
1 (SYNTHESISER LATCH 2)
2 (DATA) INTERNAL
3 (CLOCK) I²C BUS
4 (SYNTHESISER LATCH 1)
5 (SPARE)
6 (SPARE)

J5
1 (11-6-18)
2 (7-5-11-6)
3 (3-1-4-8)
4 (4-8-7-5)
5 (2-0-3-1)
6 (11-6-18)
7 (7-5-11-6)
8 (4-8-7-5)
9 (3-1-4-8)
10 (2-0-3-1)
HIGH PASS FILTERS

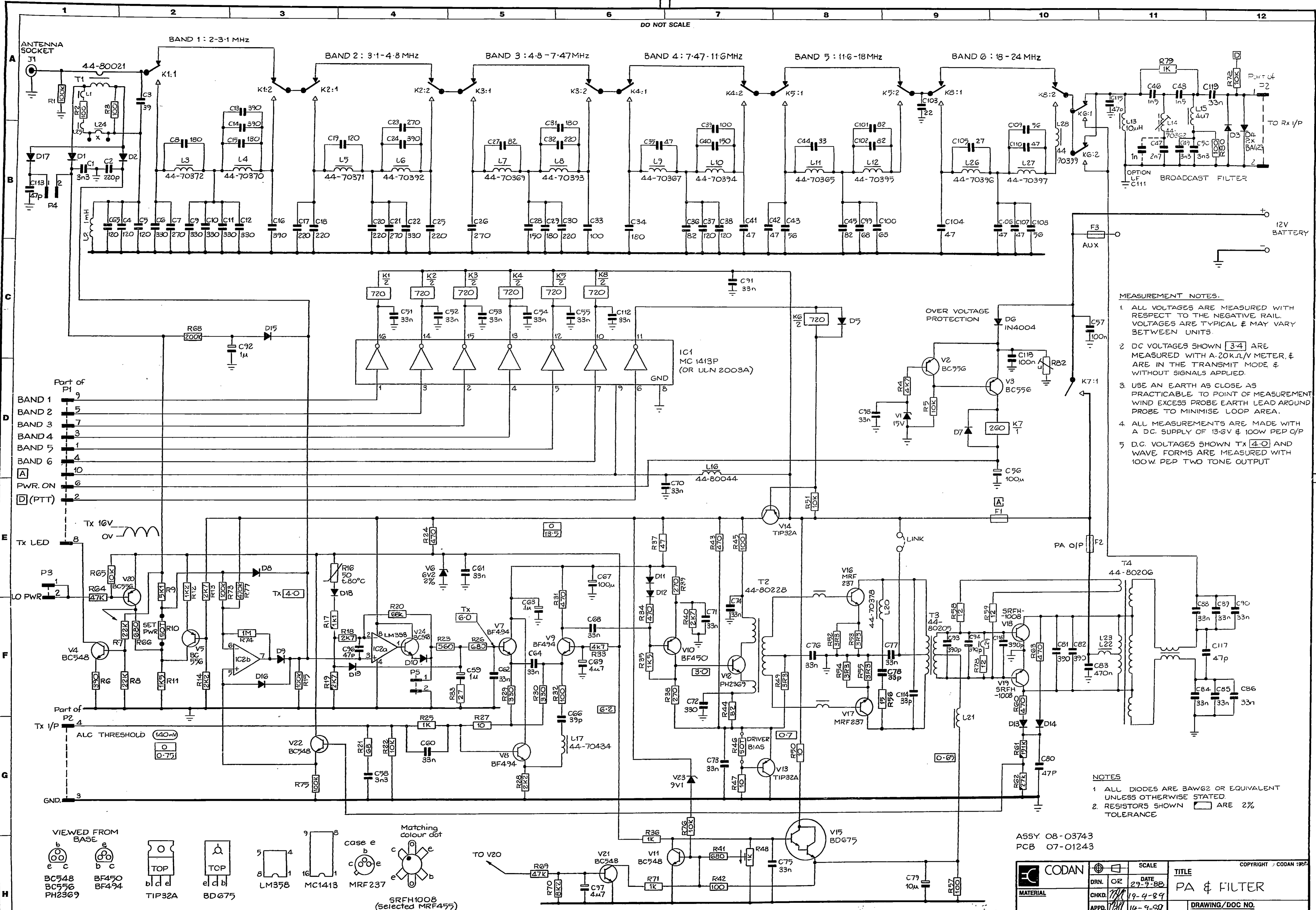
J6
1 (OV)
2 (SCAN (ACTIVE ANTENNA))
3 (OV)
4 (18-24 PA BAND)
5 (BINARY CODED CHANNEL NUMBER)
6
7
8
9
10 (+5V)
11 (+5V)

ALL DIODES BAW 62 OR EQUIVALENT
RESISTORS SHOWN ARE 2%



	SCALE	DATE	TITLE	COPYRIGHT © CODAN 1988
	DRW. CF	14-9-89	MICROPROCESSOR CONTROLLER	
MATERIAL	CHKD. MRL	14-9-89	DRAWING/DOC NO.	
FINISH	APPR. MRL	14-9-89	A1	
TOLERANCES				
UNLESS OTHERWISE SPECIFIED				
2 PLACES DEC ±				
1 PLACE DEC ±				
ANGULAR ±				
ISS	12	3	56	
REV				
OF				

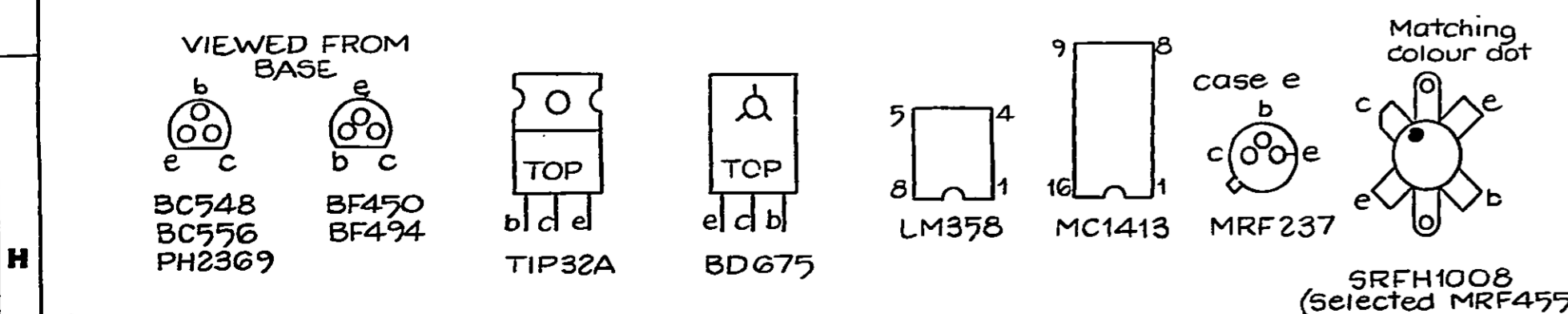
DO NOT SCALE



- MEASUREMENT NOTES.**
1. ALL VOLTAGES ARE MEASURED WITH RESPECT TO THE NEGATIVE RAIL. VOLTAGES ARE TYPICAL & MAY VARY BETWEEN UNITS.
 2. DC VOLTAGES SHOWN [3.4] ARE MEASURED WITH A 20K Ω /V METER, & ARE IN THE TRANSMIT MODE & WITHOUT SIGNALS APPLIED.
 3. USE AN EARTH AS CLOSE AS PRACTICABLE TO POINT OF MEASUREMENT WIND EXCESS PROBE EARTH LEAD AROUND PROBE TO MINIMISE LOOP AREA.
 4. ALL MEASUREMENTS ARE MADE WITH A DC SUPPLY OF 13.6V & 100W PEP C/P
 5. D.C. VOLTAGES SHOWN TX [4.0] AND WAVE FORMS ARE MEASURED WITH 100W PEP TWO TONE OUTPUT

- NOTES**
1. ALL DIODES ARE 1N4148 OR EQUIVALENT UNLESS OTHERWISE STATED.
 2. RESISTORS SHOWN [] ARE 2% TOLERANCE

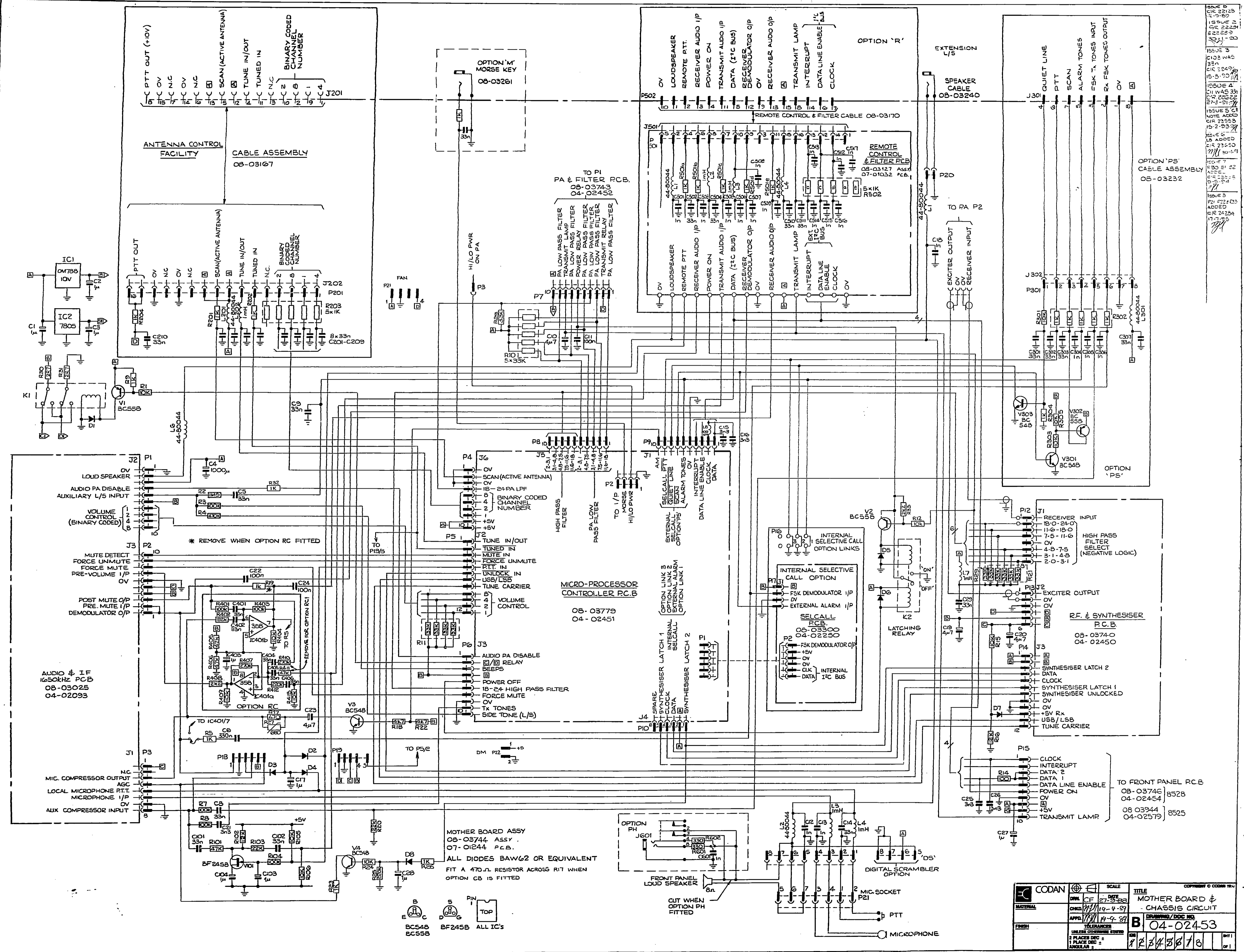
ASSY 08-03743
PCB 07-01243



ISSUE 11	ISSUE 10	ISSUE 9	ISSUE 8	ISSUE 7	ISSUE 6	ISSUE 5	ISSUE 4	ISSUE 3	ISSUE 2	ISSUE 1
26-7-96	13-6-95	13-6-95	13-6-95	13-6-95	13-6-95	13-6-95	13-6-95	13-6-95	13-6-95	13-6-95

DRN.	OR	DATE	TITLE
CHKD.		19-9-89	PA & FILTER
APPD.		14-9-89	DRAWING/DOC NO.
TOLERANCES			A1 04-02452
UNLESS OTHERWISE STATED			
2 PLACES DEC \pm			
1 PLACE DEC \pm			
ANGULAR \pm			

586



ISSUE 3
 CIR 22125
 15-9-78
 ISSUE 4
 CIR 22125
 15-9-78
 ISSUE 5
 CIR 22125
 15-9-78
 ISSUE 6
 CIR 22125
 15-9-78
 ISSUE 7
 CIR 22125
 15-9-78
 ISSUE 8
 CIR 22125
 15-9-78
 ISSUE 9
 CIR 22125
 15-9-78
 ISSUE 10
 CIR 22125
 15-9-78
 ISSUE 11
 CIR 22125
 15-9-78
 ISSUE 12
 CIR 22125
 15-9-78
 ISSUE 13
 CIR 22125
 15-9-78
 ISSUE 14
 CIR 22125
 15-9-78
 ISSUE 15
 CIR 22125
 15-9-78
 ISSUE 16
 CIR 22125
 15-9-78
 ISSUE 17
 CIR 22125
 15-9-78
 ISSUE 18
 CIR 22125
 15-9-78
 ISSUE 19
 CIR 22125
 15-9-78
 ISSUE 20
 CIR 22125
 15-9-78

CODAN		SCALE	TITLE	COPYRIGHT © CODAN LTD.	
DRAWN		CF 27	MOTHER BOARD & CHASSIS CIRCUIT	DATE	
CHKD		WJ 19-4-89		DRAWING / DOC NO	
APPRD		WJ 14-9-89		04-02453	
FMSH				UNLESS OTHERWISE STATED	
1: PLACE DEC				M 12/24/89/18	
2: PLACE DEC				1	
ANGULAR				1	

OPTION 'PS'
CABLE ASSEMBLY
08-03232

R.F. & SYNTHESISER
P.C.B.
08-0374-0
04-02450

INTERNAL SELECTIVE CALL OPTION
P.C.B.
08-0380-0
04-02250

MICRO-PROCESSOR CONTROLLER P.C.B.
08-03779
04-02451

PA FILTER P.C.B.
08-0374-3
04-02452

OPTION 'M'
MORSE KEY
08-03261

ANTENNA CONTROL FACILITY
CABLE ASSEMBLY
08-03167

IC1
0M788
10V
IC2
7805

AUDIO & IF
1650KHZ P.C.B.
08-03025
04-02093

OPTION RC
P.C.B.
08-0374-1
04-02450

DIGITAL SCRAMBLER OPTION

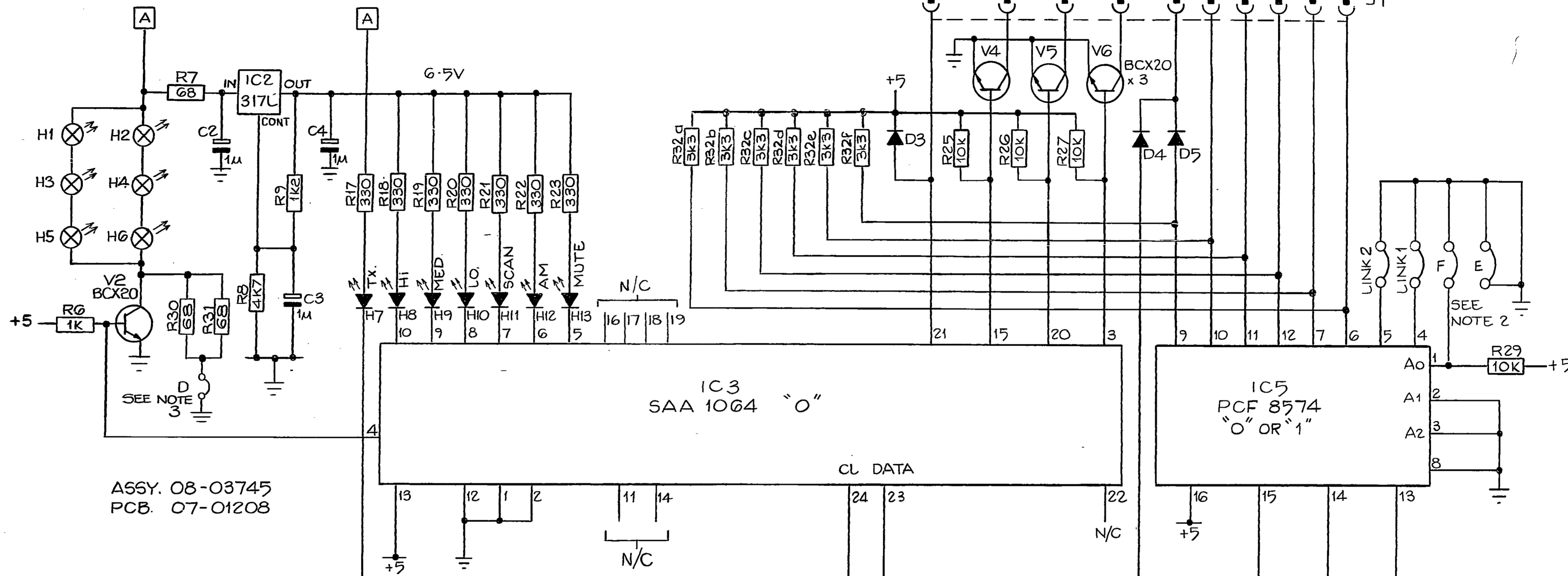
MOTHER BOARD ASSY
 08-03744 ASSY.
 07-01244 P.C.B.
 ALL DIODES BAW62 OR EQUIVALENT
 FIT A 470Ω RESISTOR ACROSS R17 WHEN
 OPTION CB IS FITTED

BC548
 BC558
 BF245B ALL IC's

CUT WHEN OPTION PH FITTED

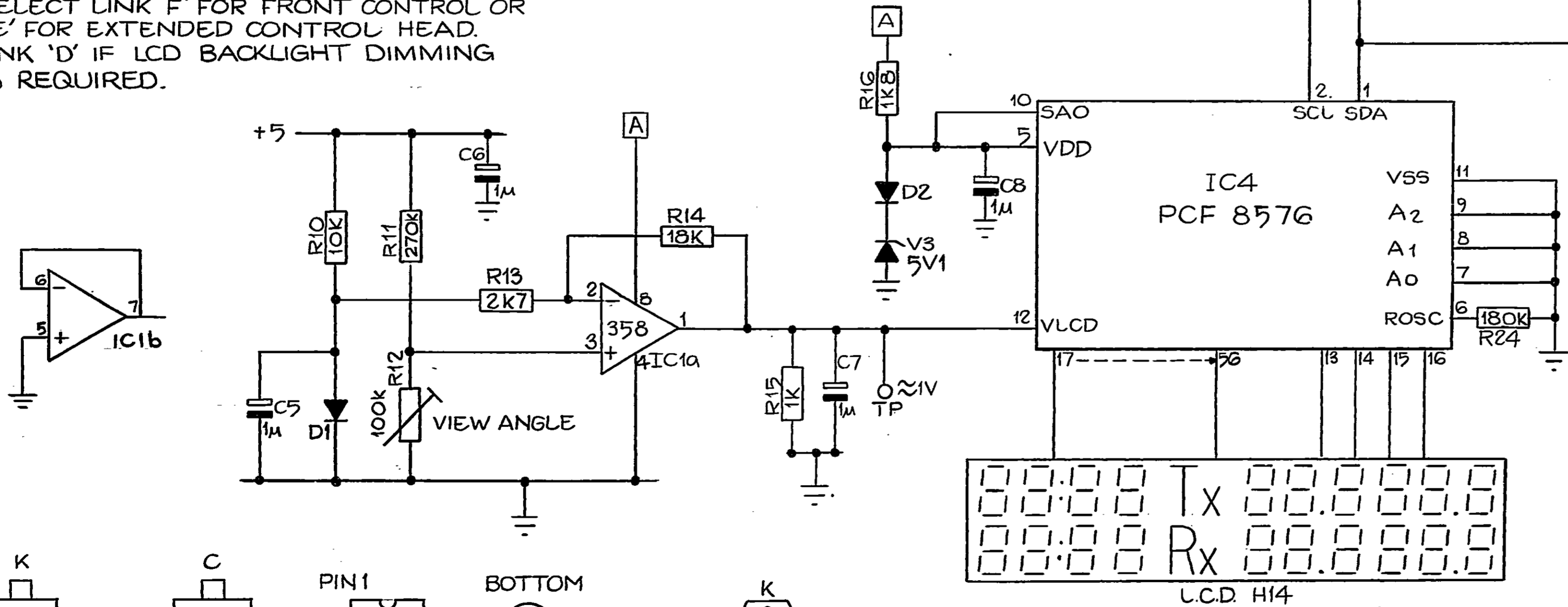
DO NOT SCALE

KEY PAD



ASSY. 08-03745
PCB. 07-01208

- NOTE:-
1. ALL DIODES BAS 10 OR EQUIV.
 2. SELECT LINK 'F' FOR FRONT CONTROL OR 'E' FOR EXTENDED CONTROL HEAD.
 3. LINK 'D' IF LCD BACKLIGHT DIMMING IS REQUIRED.



- P2
- 1 CLK.
- 2 INT.
- N/C
- 3 DATA 2
- 4 DATA 1
- N/C
- 5 ENABLE
- 6 POWER ON
- 7 GND.
- 8 [A]
- 9 +5
- 10 TX LED

ISSUE B
R30 ADDED
C/R 21965
27-6-87 *MJL*

ISSUE C
R28 WAS 10K
C/R 22125
14-9-89 *MJL*

ISSUE 2
V1 NOW OPTIONAL
C/R 22156
15-11-89 *MJL*

ISSUE 3
LINKS E&F TRANSPOSED
C/R 22253
20-12-85 *MJL*

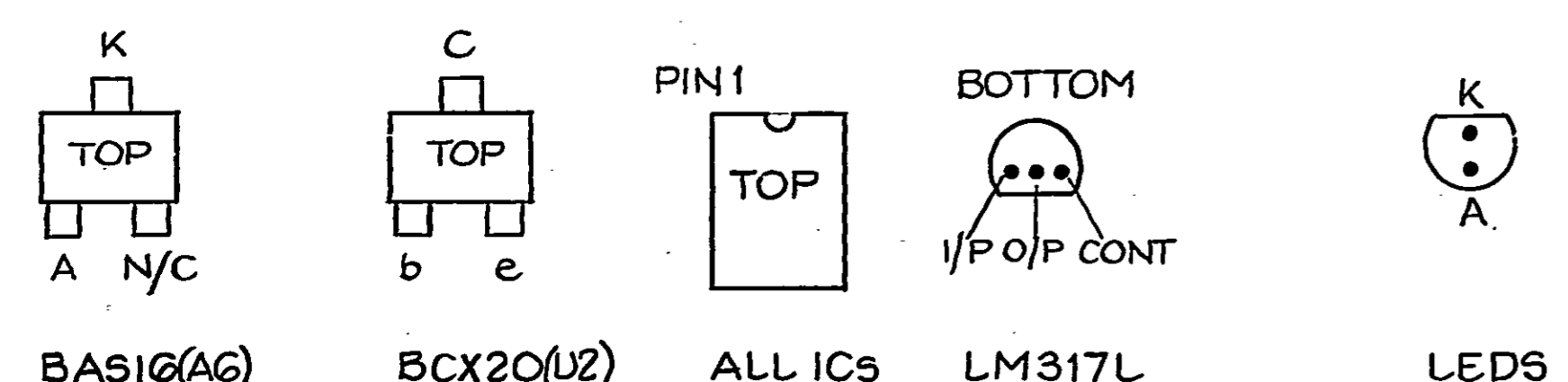
ISSUE 4
C/R 22289
25.1.90
R9 WAS 1K *MJL*

ISSUE 5
H2 WAS H4
H3 " H2
H4 " H5
H5 " H3
C/R 22903
8-5-91 *MJL*

ISSUE 6
R1, R2, R3, R4,
R5 # C1 DELETED
C/R 23589
4-3-93 *MJL*

ISSUE 7
R11 WAS 390K
IC1 PIN 8 WAS
+5V
C/R 24093
14-11-94 *MJL*

	DRN.	O.R.	SCALE	TITLE
	CHKD.	<i>MJL</i>	DATE 4-10-88	DISPLAY BOARD, L.C.D.
	APPD.	<i>MJL</i>	19-4-84 14-9-84	DRAWING/DOC NO. A2 04-02454
FINISH	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±			ISS 1/23A/5/7
				SHT OF

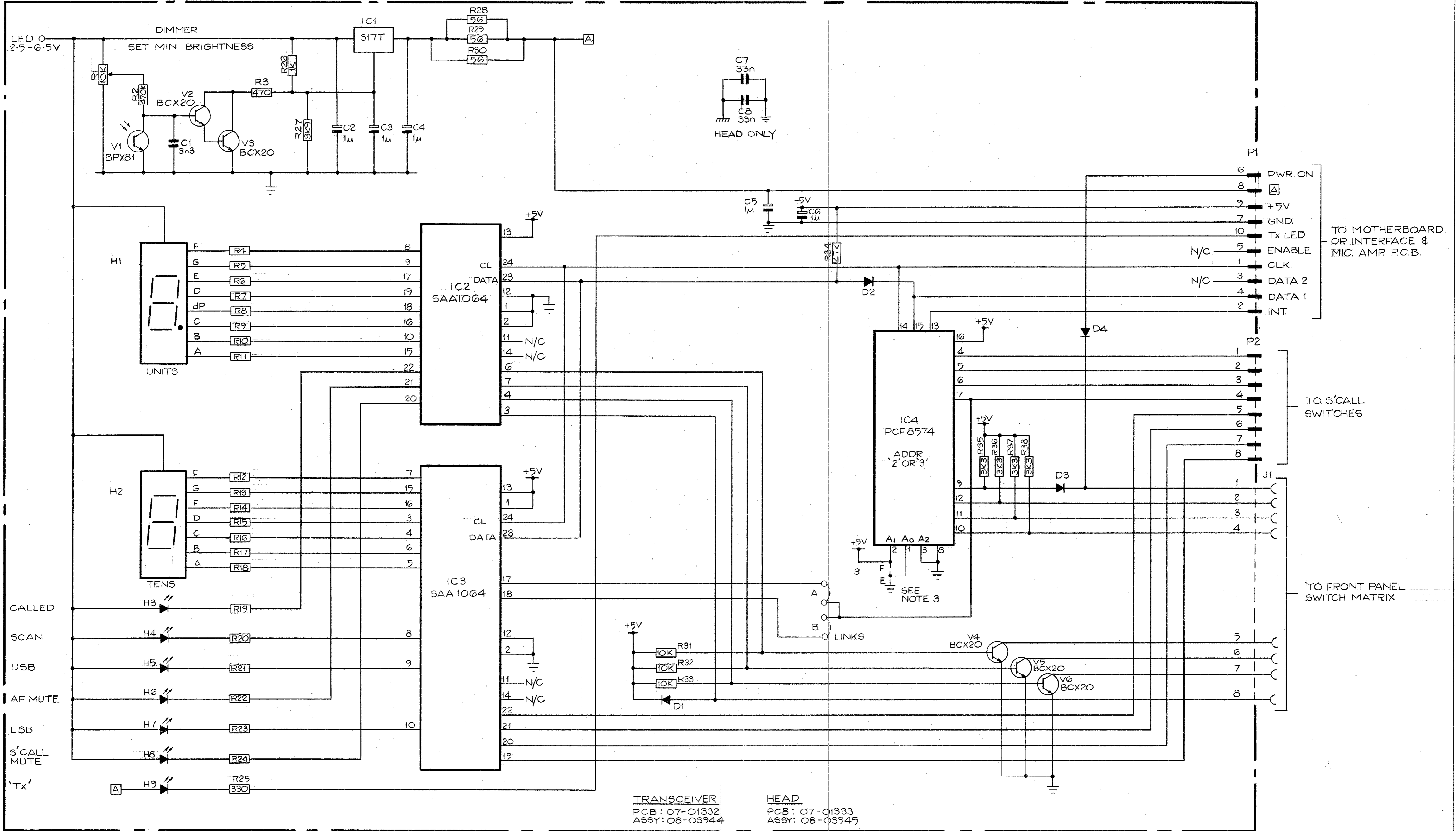


DO NOT SCALE

ISSUE 1
R24 WAS 4K7
CIR 22128
14-9-89

ISSUE 2
R28 WAS R25
R29 WAS R24
CIR 22538
27-8-90

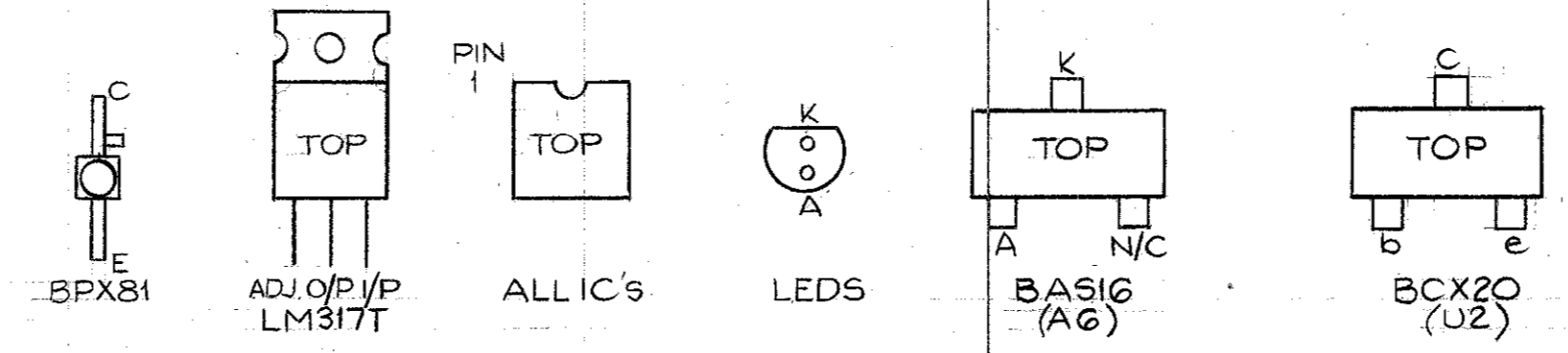
ISSUE 3
C7 AND C8
ADDED
CIR 23377
22-7-92



NOTES:
 1. ALL DIODES BAS 10(A6) UNLESS OTHERWISE STATED.
 2. R4 TO R24 470Ω.
 3. THE F CONNECTION IS MADE FOR TRANSCEIVERS.
 THE E CONNECTION IS MADE FOR CONTROL HEADS.

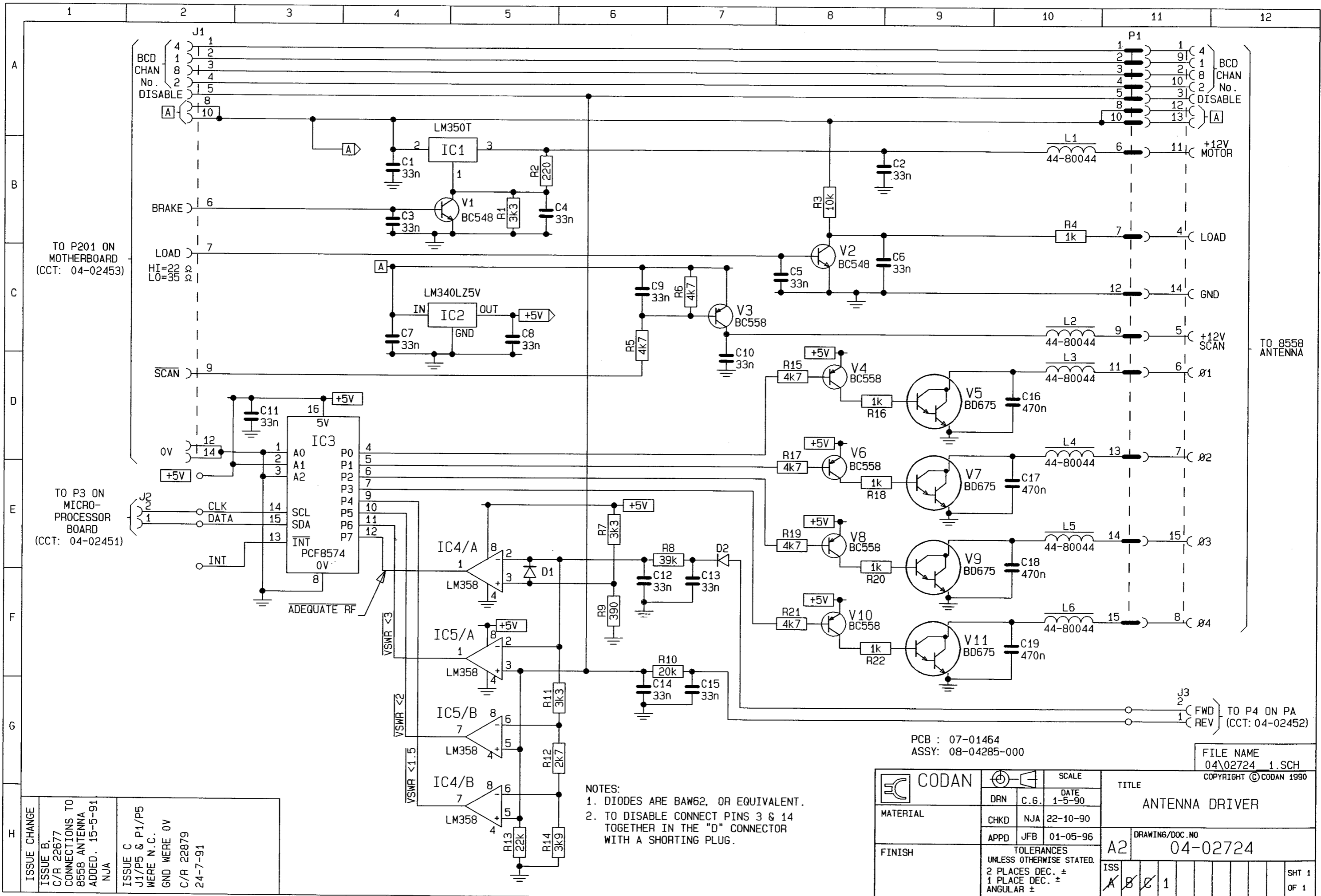
TRANSCEIVER
 PCB: 07-01332
 ASSY: 08-03944

HEAD
 PCB: 07-01333
 ASSY: 08-03945



CODAN	SCALE	DATE	TITLE	COPYRIGHT © CODAN 19
	DRN. O.S.	5-6-89	DISPLAY BOARD	
MATERIAL	CHKD. M	1-9-89	DRAWING/DOC NO.	
FINISH	APPD. M	14-9-89	A1 04-02579	
UNLESS OTHERWISE STATED			ISS	
2 PLACES DEC ±			1/23	SHT
1 PLACE DEC ±				OF
ANGULAR ±				

566



PCB : 07-01464
 ASSY: 08-04285-000

FILE NAME
 04\02724_1.SCH
 COPYRIGHT © CODAN 1990

- NOTES:
 1. DIODES ARE BAW62, OR EQUIVALENT.
 2. TO DISABLE CONNECT PINS 3 & 14 TOGETHER IN THE "D" CONNECTOR WITH A SHORTING PLUG.

	DRN	C.G.	SCALE	TITLE
	1-5-90	22-10-90	DATE	
MATERIAL	CHKD	NJA	APPD	JFB
FINISH	TOLERANCES UNLESS OTHERWISE STATED. 2 PLACES DEC. ± 1 PLACE DEC. ± ANGULAR ±			DRAWING/DOC. NO A2 04-02724
ISS				SHT 1 OF 1

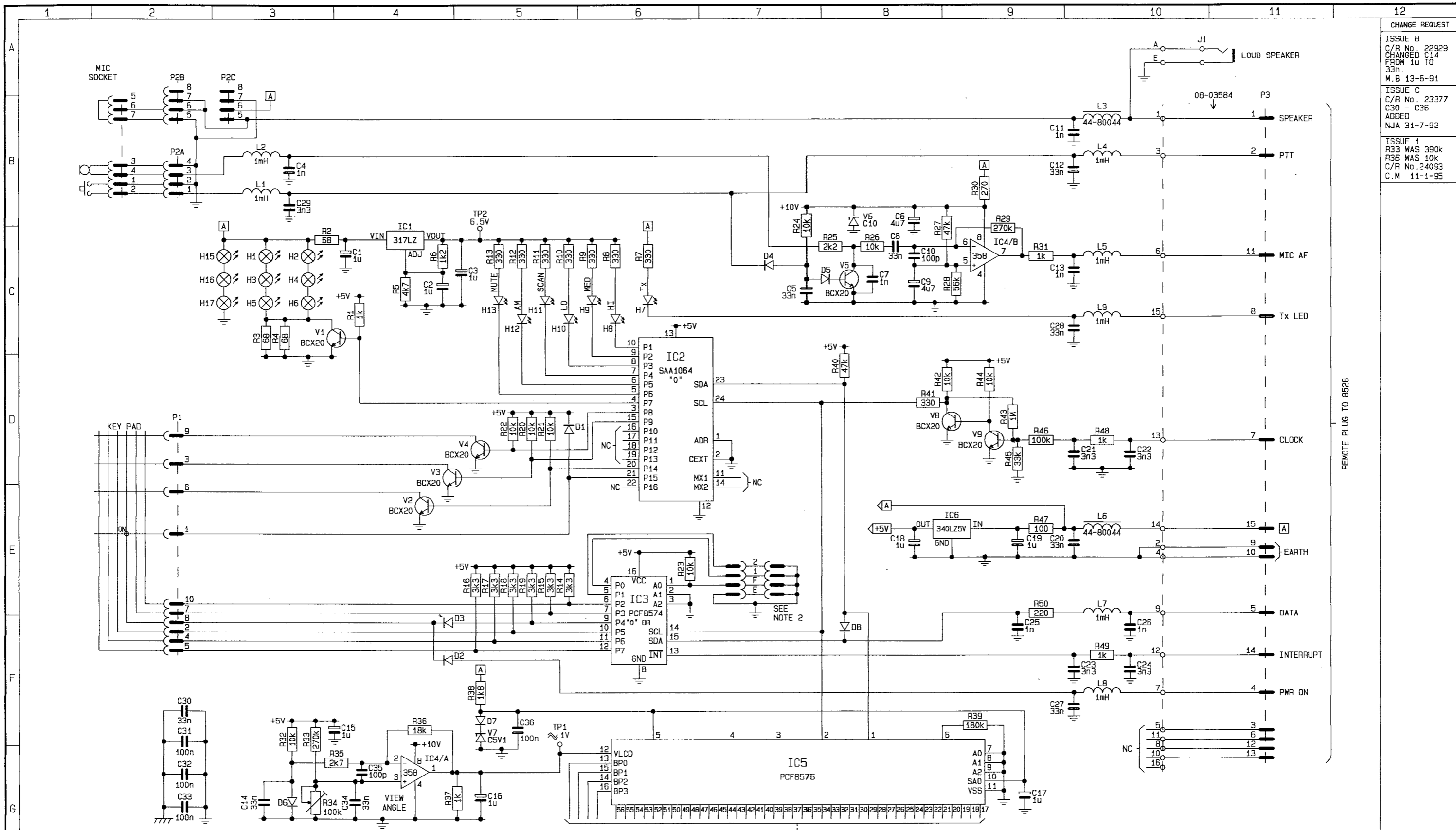
ISSUE CHANGE
 ISSUE B:
 C/R 22677
 CONNECTIONS TO
 8558 ANTENNA
 ADDED. 15-5-91
 NJA
 ISSUE C
 J1/P5 & P1/P5
 WERE N.C.
 GND WERE 0V
 C/R 22879
 24-7-91

TO P201 ON
 MOTHERBOARD
 (CCT: 04-02453)

TO P3 ON
 MICRO-
 PROCESSOR
 BOARD
 (CCT: 04-02451)

TO 8558
 ANTENNA

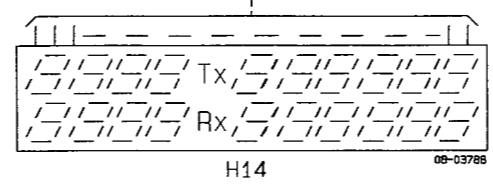
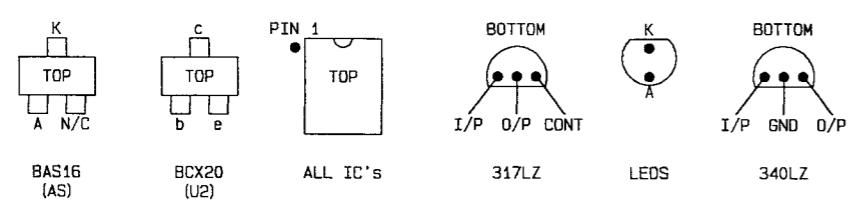
TO P4 ON PA
 (CCT: 04-02452)



CHANGE REQUEST
 ISSUE B
 C/R No. 22929
 CHANGED C14
 FROM 1u TO
 33n.
 M.B 13-6-91
 ISSUE C
 C/R No. 23377
 R36 WAS 10k
 C30 - C36
 ADDED
 NJA 31-7-92
 ISSUE 1
 R33 WAS 390k
 R36 WAS 10k
 C/R No. 24093
 C.M 11-1-95

REMOTE PLUG TO 8528

NOTES:
 1. DIODES ARE BAS16, OR EQUIVALENT, UNLESS OTHERWISE STATED.
 2. SELECT LINK 'F' FOR FRONT CONTROL OR 'E' FOR EXTENDED CONTROL HEAD.

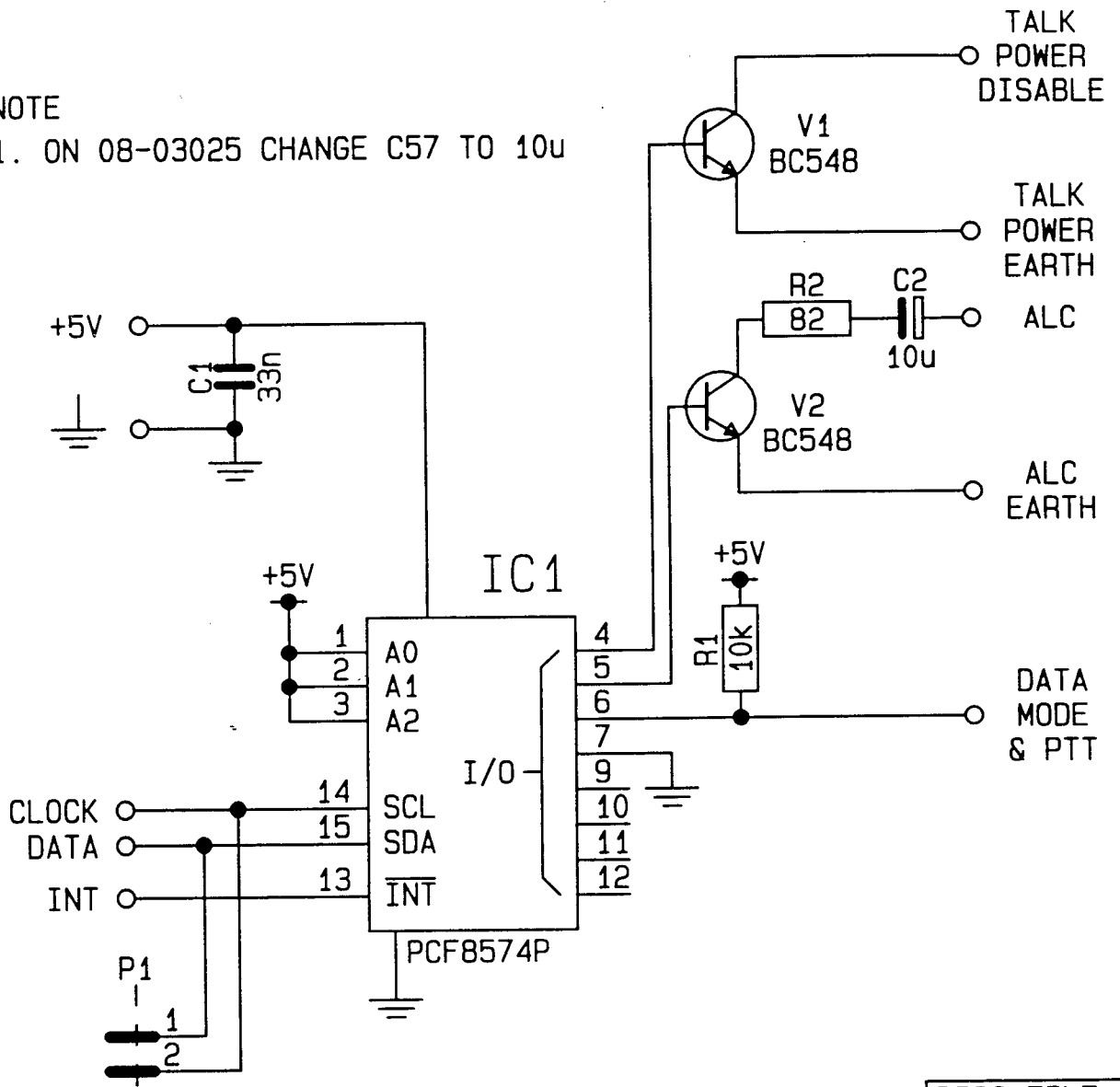


PCB 07-01606
 ASSY 08-04666-001

CODAN	SCALE	DATE		CODAN PTY. LTD. A.C.N. 007 590 605. 1994
	CG	11-12-90		
MATERIAL	CHKD	NJA	7-3-91	TITLE
FINISH	APPD	C.M	11-1-95	DISPLAY PCB
TOLERANCES UNLESS OTHERWISE STATED				DRAWING/DOC. NO.
2 PLACES DEC. ±				A1
1 PLACE DEC. ±				04-02875
ANGULAR ±				ISS
1				SHT 1
				OF 1

NOTE

1. ON 08-03025 CHANGE C57 TO 10u



PCB 07-01667
ASSY 08-05041-001

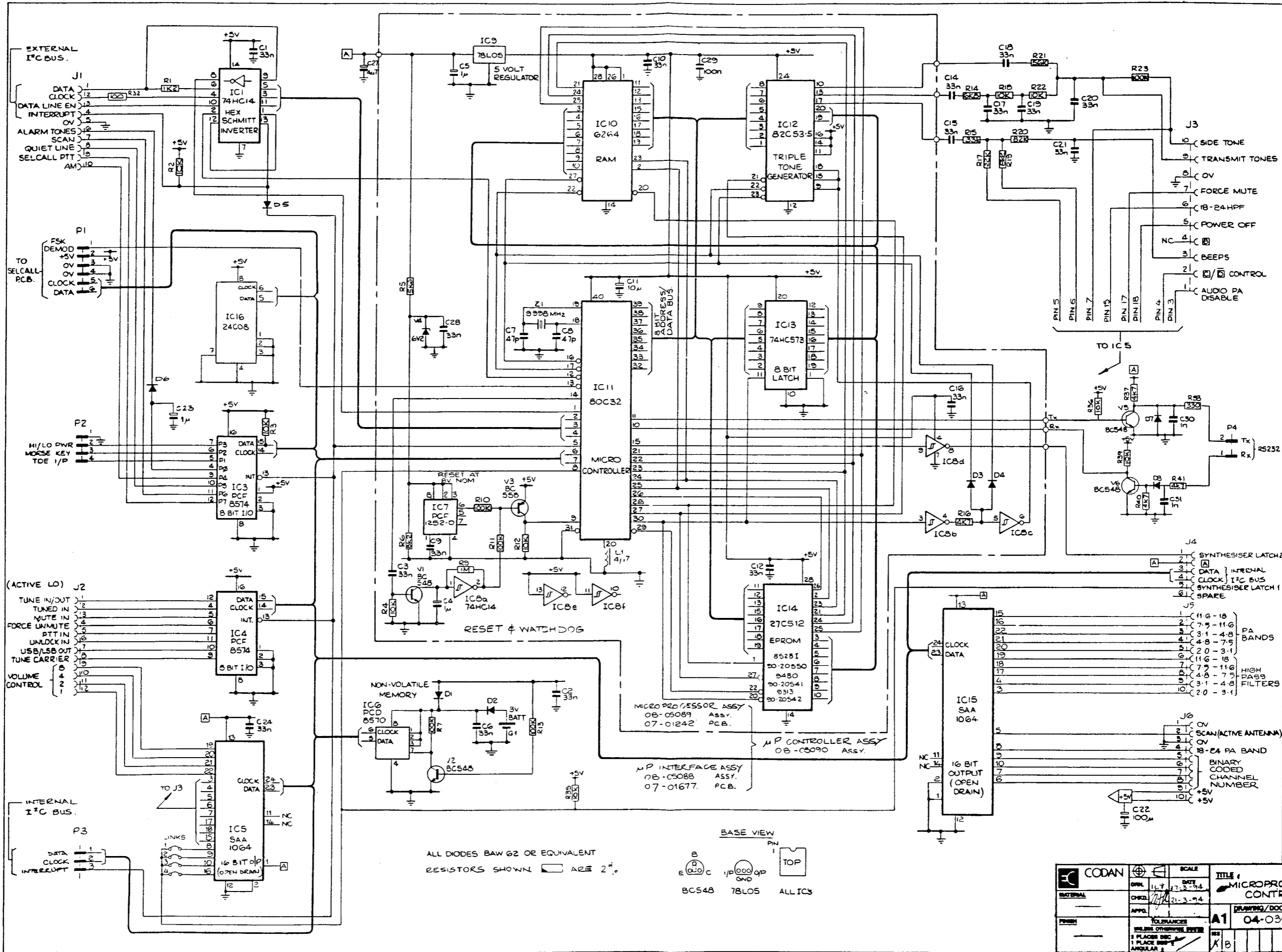
DISC FILE
3018-B.EXE

ISSUE CHANGE

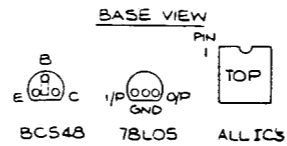
ISSUE B:
C/R 24080
R2 ADDED.
C2 WAS 47u.
P12/49

			SCALE	COPYRIGHT © CODAN PTY. LTD. A.C.N. 007 590 605 TITLE DATA MODE SWITCH
	DRN	PJL	DATE 16-9-93	
MATERIAL	CHKD	NJA	26-11-93	DRAWING/DOC.NO A4 04-03018
	APPD			
FINISH	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC. ± 1 PLACE DEC. ± ANGULAR ±			ISS A B

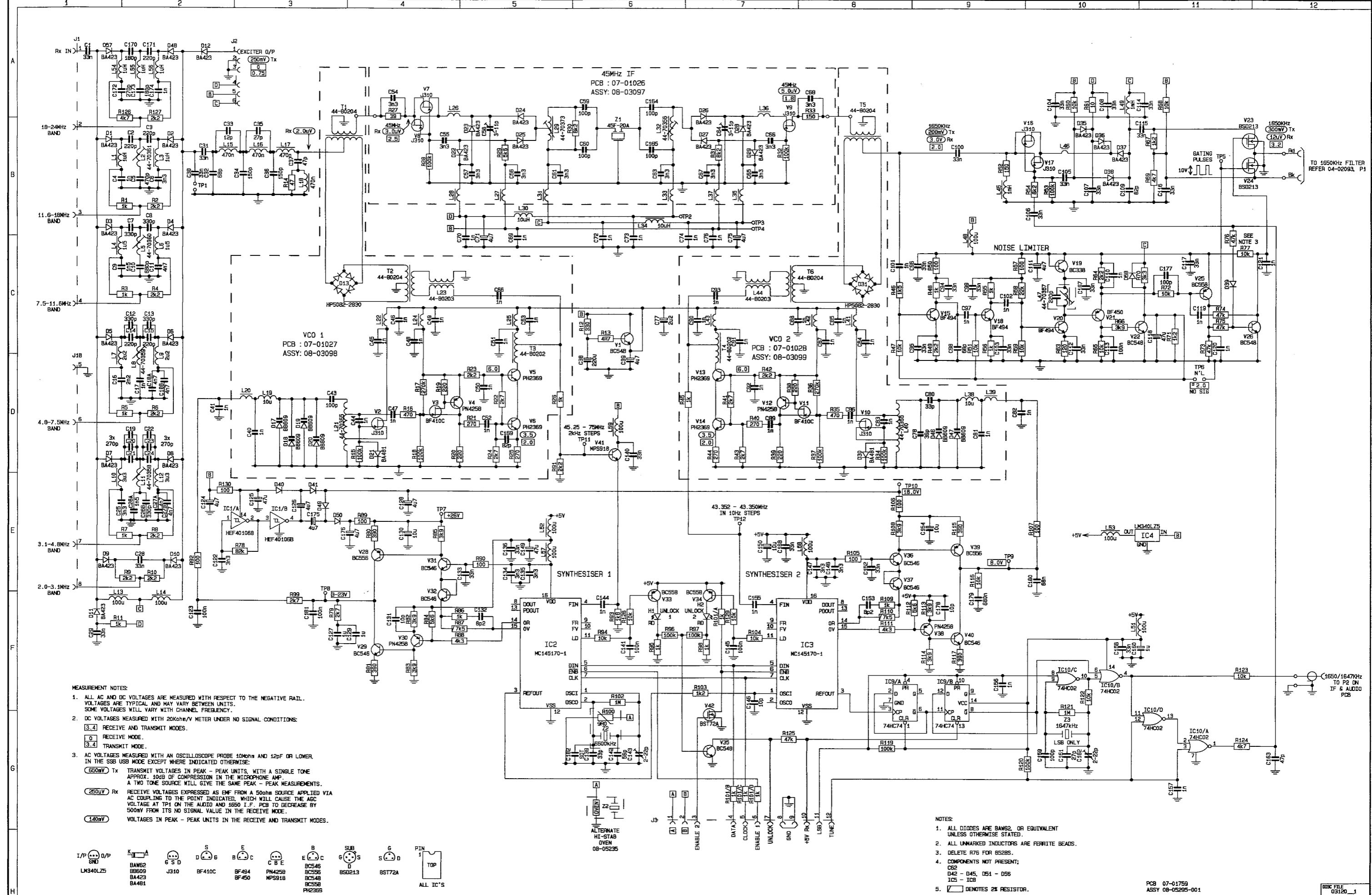
ISS. B
IC14 DETAILS
CHANGED
CIR 24211/11
19-3-95



ALL DIODES BAW 62 OR EQUIVALENT
RESISTORS SHOWN ARE 2%

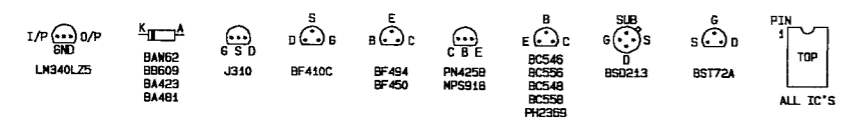


CODAN	SCALE	1:1	TITLE	MICROPROCESSOR CONTROLLER
	DATE	17.3.94		
APPROV.	21.3.94	APP'D.	DRAWING/DOC NO.	04-03031
TOLERANCES				
UNLESS OTHERWISE SPECIFIED			REV	
1 PLACE DEC				
1 PLACE IMP				
ANGULAR				



MEASUREMENT NOTES:

- ALL AC AND DC VOLTAGES ARE MEASURED WITH RESPECT TO THE NEGATIVE RAIL. VOLTAGES ARE TYPICAL AND MAY VARY BETWEEN UNITS. SOME VOLTAGES WILL VARY WITH CHANNEL FREQUENCY.
- DC VOLTAGES MEASURED WITH 20Kohm/V METER UNDER NO SIGNAL CONDITIONS.
 - 3.4 RECEIVE AND TRANSMIT MODES.
 - 0 RECEIVE MODE.
 - 3.4 TRANSMIT MODE.
- AC VOLTAGES MEASURED WITH AN OSCILLOSCOPE PROBE 10Mohm AND 12pF OR LOWER, IN THE SSB USB MODE EXCEPT WHERE INDICATED OTHERWISE:
 - 650mV Tx TRANSMIT VOLTAGES IN PEAK - PEAK UNITS, WITH A SINGLE TONE APPROX. 10dB OF COMPRESSION IN THE MICROPHONE AMP. A TWO TONE SOURCE WILL GIVE THE SAME PEAK - PEAK MEASUREMENTS.
 - 250uV Rx RECEIVE VOLTAGES EXPRESSED AS EMF FROM A 500Hz SOURCE APPLIED VIA AC COUPLING TO THE POINT INDICATED, WHICH WILL CAUSE THE AGC VOLTAGE AT TP1 ON THE AUDIO AND 1650 I.F. PCB TO DECREASE BY 500mV FROM ITS NO SIGNAL VALUE IN THE RECEIVE MODE.
 - 140mV VOLTAGES IN PEAK - PEAK UNITS IN THE RECEIVE AND TRANSMIT MODES.



ALL DEVICES VIEWED FROM BASE, UNLESS SHOWN OTHERWISE.

- NOTES:**
- ALL DIODES ARE BAW22, OR EQUIVALENT UNLESS OTHERWISE STATED.
 - ALL UNMARKED INDUCTORS ARE FERRITE BEADS.
 - DELETE R76 FOR BS28S.
 - COMPONENTS NOT PRESENT:
 - C82
 - D42 - D45, D51 - D55
 - IC5 - IC8
 - DENOTES 2% RESISTOR.

PCB 07-01759
ASSY 08-05295-001

CODAN

SCALE: 1:1

TITLE: RF MIXER & DUAL SYNTHESISER PCB

DATE: 11-12-96

APPD: MJS 6-5-97

FINISH: A0

UNLESS OTHERWISE STATED

2 PLACES DEC. #

1 PLACE DEC. #

ANGULAR ±

ISS: A1

DRWING/DATE: 04-03120

DATE: 11-12-96

A.C.N. 907 200 002 1990

04-03120

SHT 1 OF 1

ISSUE CHANGE

ISSUE 1:

CR 28020

CR 27006

WERE 27006

8-5-87 MJS

ISSUE 9
C54 WAS 100p
C57 ADDED
C/R 22496
20-8-90 NJA

ISSUE 10
C55 WAS 100n
R28 & R30 WERE
68K
C/R 22538
29-8-90 NJA

ISSUE 11
R52 WAS 470
R96 WAS 330
C/R 23587
4-3-93 NJA

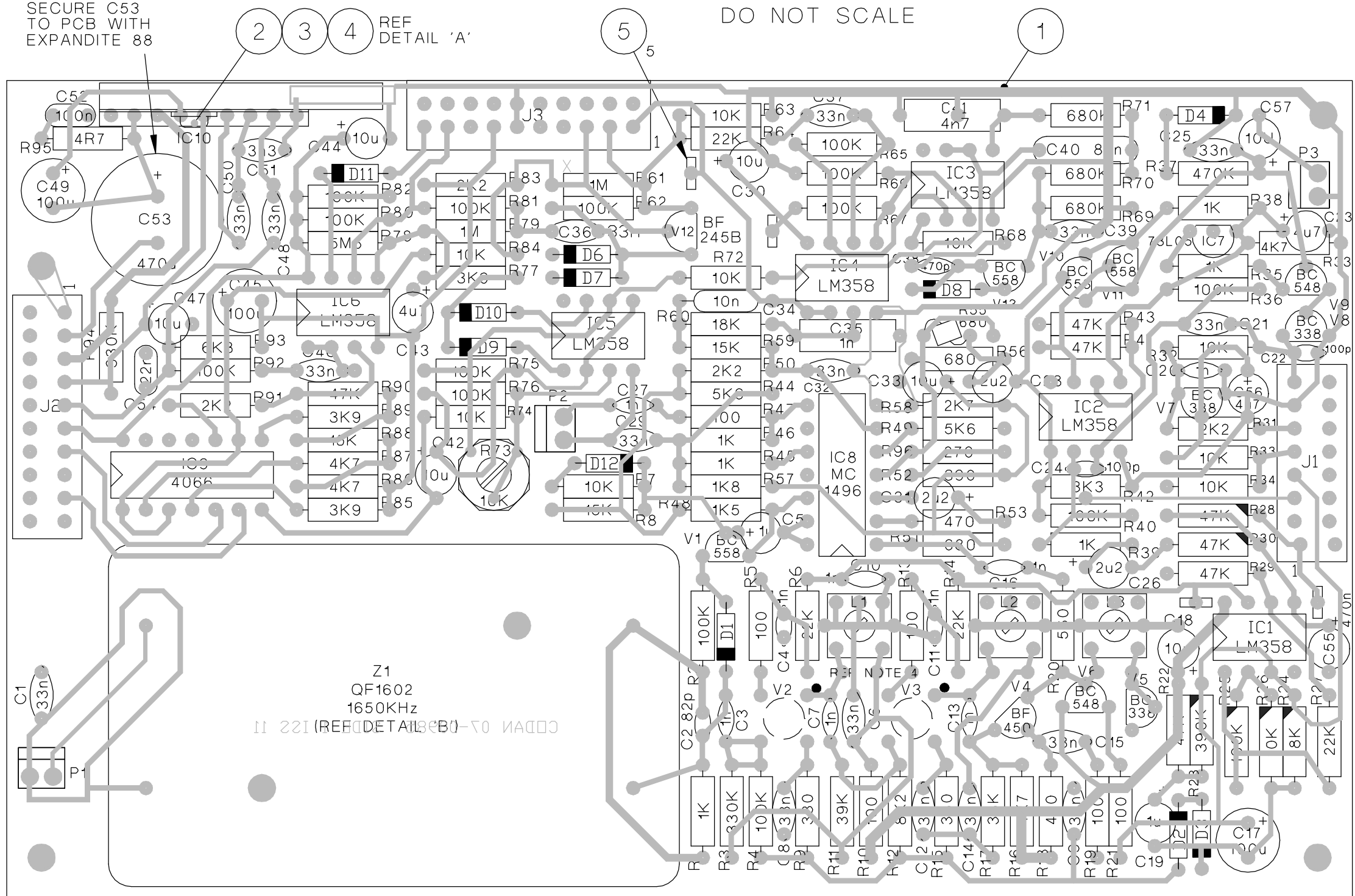
ISSUE 12
R97 ADDED
C/R 23689
29-9-93 NJA

ISSUE 13
P3 ADDED
C/R 24314
2-8-95
C57 WAS 1u
C/R 24319
7-8-95 NJA

ISSUE 14
V2 & V3 WERE
3SK85
C/R 24597
10-5-96 NJA

SECURE C53
TO PCB WITH
EXPANDITE 88

DO NOT SCALE



B. 21096

ISSUE 2
C56 ADDED
C/R 21271
V7 WAS BC548
C/R 21257
8-4-87 NJA

ISSUE 3
ITEM 3 ADDED
BETWEEN Z1
& PCB
C/R 21289
10-6-87 NJA

ISSUE 4
PCB WAS ISS. 4
R54 DELETED
R52 WAS 1K
R55 WAS 1K3
C/R 21339
29-9-87

ISSUE 5
R55 680 WAS
R52 820
C/R 21414
11-2-88 NJA

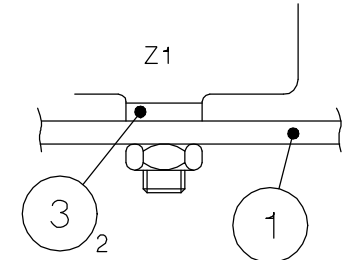
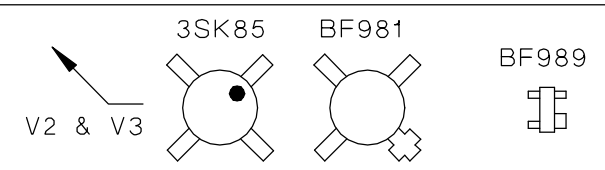
ISSUE 6
R36 WAS 47K
R95 ADDED
C/R 21621
22-9-88 NJA

ISSUE 7
3SK85 WAS BF981
(V2 & V3)
C/R 21999
22-6-89 NJA

ISSUE 8
C25 WAS 1u
D5 DELETED
R37 DET ADDED
C/R 22442
26-4-90 NJA

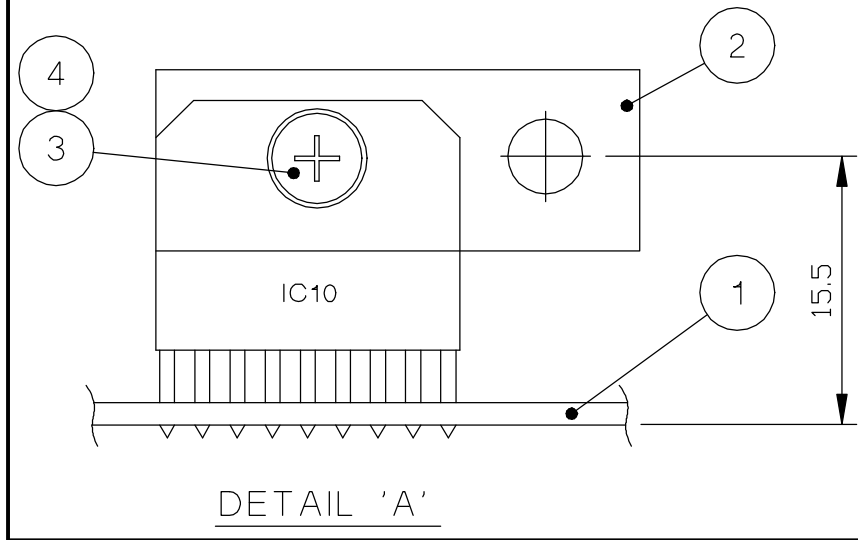
Z1
QF1602
1650KHz
CODAN 07-0985 (REVISED) 122 11

PCB 07-00985 ISSUE 11



DETAIL 'B'

FILE NAME
08\03025_14.DWG

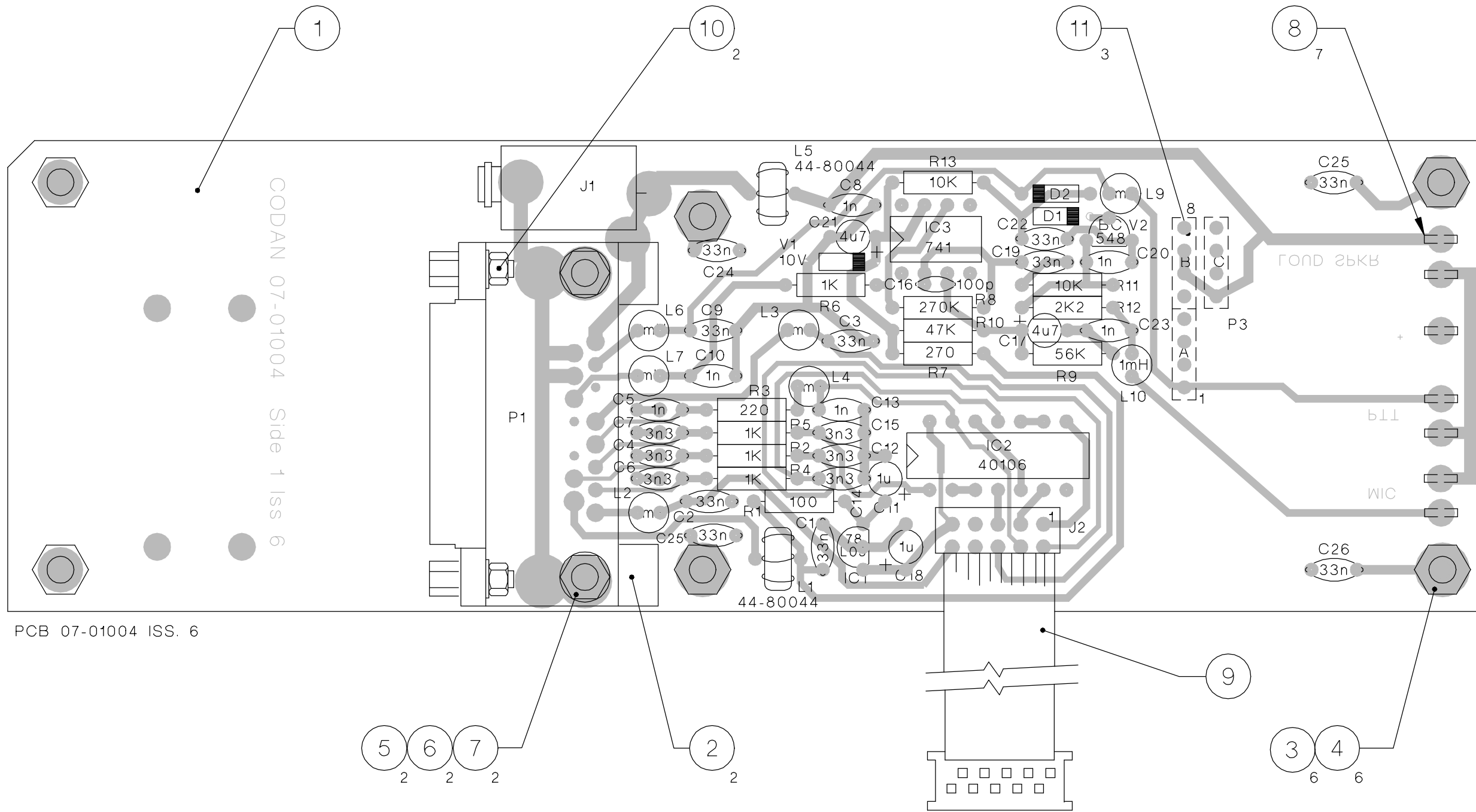


- NOTES:
1. ALL DIODES BAW62 OR EQUIVALENT.
 2. RESISTORS SHOWN ARE 2%
 3. CUT PINS OFF FILTER 4mm LONG FROM PCB AFTER SOLDERING.
 4. L1, L2 & L3 ARE 44-70357

	DRN	MB	SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1997	
	MATERIAL	CHKD NJA 18-8-86	DATE 2-7-86	TITLE AUDIO & IF 1650 KHz PCB	
FINISH	APPD NJA 30-10-86	TOLERANCES UNLESS OTHERWISE STATED		DRAWING/DOC NO. A3 08-03025	
			2 PLACES DEC.	ISS	
			1 PLACE DEC. ±0.5	11 12 13 14	
			0 PLACE DEC. ±1	SHT. 1	
			ANGULAR ±2°	OF 1	

DO NOT SCALE

ITEMS SHOWN DOTTED FITTED TO UNDERSIDE OF PCB.



B. 21080

ISSUE 2
ITEMS 6 & 7
WERE 2 OFF
ITEM 10 ADDED
C/R 21434
24-3-88 NJA

ISSUE 3
P3 ADDED
PHONES & R14
DELETED
C/R 21857
10-1-89 NJA

ISSUE 4
ITEM 7 DELETED
C/R 21919
30-3-89 NJA

ISSUE 5
5 STAKES ADDED
PCB WAS ISS. 4
C/R 22156
16-11-89 NJA

ISSUE 6
ITEM 10 WAS
SCREW LOCK ASSY
C/R 22503
QTY ITEM 11 WAS 2
C/R 22530
23-8-90 NJA

ISSUE 7
4 x ITEM 8
DELETED
C/R 23004
9-8-91 NJA

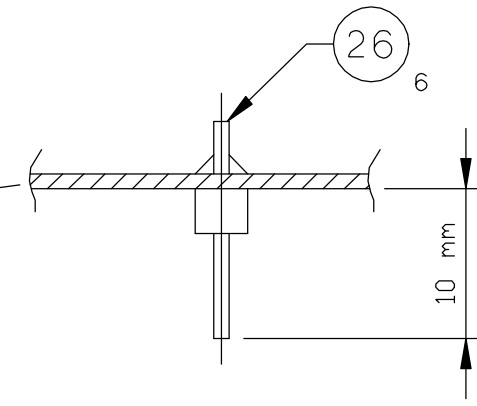
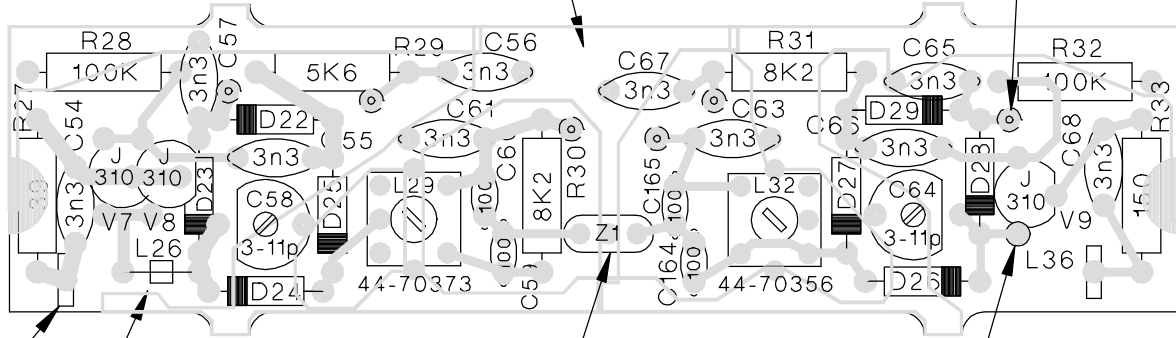
ISSUE 8
PCB WAS ISS 5
C24,C25,C26 & C27
ADDED
C/R 23377
24-7-92 NJA

FILE NAME
08\03039_8.DWG

			SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1997			
	DRN	APJ	DATE 4-7-86	TITLE MIC AMP & INTERFACE BOARD			
MATERIAL	CHKD	NJA	18-8-86	DRAWING/DOC NO. 08-03039			
FINISH	APPD	NJA	30-10-86	ISS			
	TOLERANCES UNLESS OTHERWISE STATED			A3	8		
			2 PLACES DEC.	±0.5			
			1 PLACE DEC.	±1			
			0 PLACE DEC.	±2°			

DO NOT SCALE

PCB 07-01026 ISS. 2



MOUNT 4BI BEAD
UNDERSIDE OF PCB
GLUED WITH EXPANDITE 88
ON ALL POINTS MARKED
(⊙) = 6 OFF

25
2

4BI BEAD ON
22 SWG TCW

4BI BEAD ON
LEG ON COMP
SIDE

22

SOLDER SEAMS
ON BOTH SIDES
OF SHIELDS

24

B. 21080
ISSUE 2
ITEM No'S CHANGED
RTV ADDED
C/R 21257
9-4-87 NJA
ISSUE 3
SCREW BLOCK
DELETED
C/R 21289
10-6-87 NJA
ISSUE 4
NOTE ADDED
RE-SOLDER SEAMS
C/R 21391
15-2-88 NJA
ISSUE 5
R27 WAS 150
C/R 23558
15-2-93 NJA

NOTES;

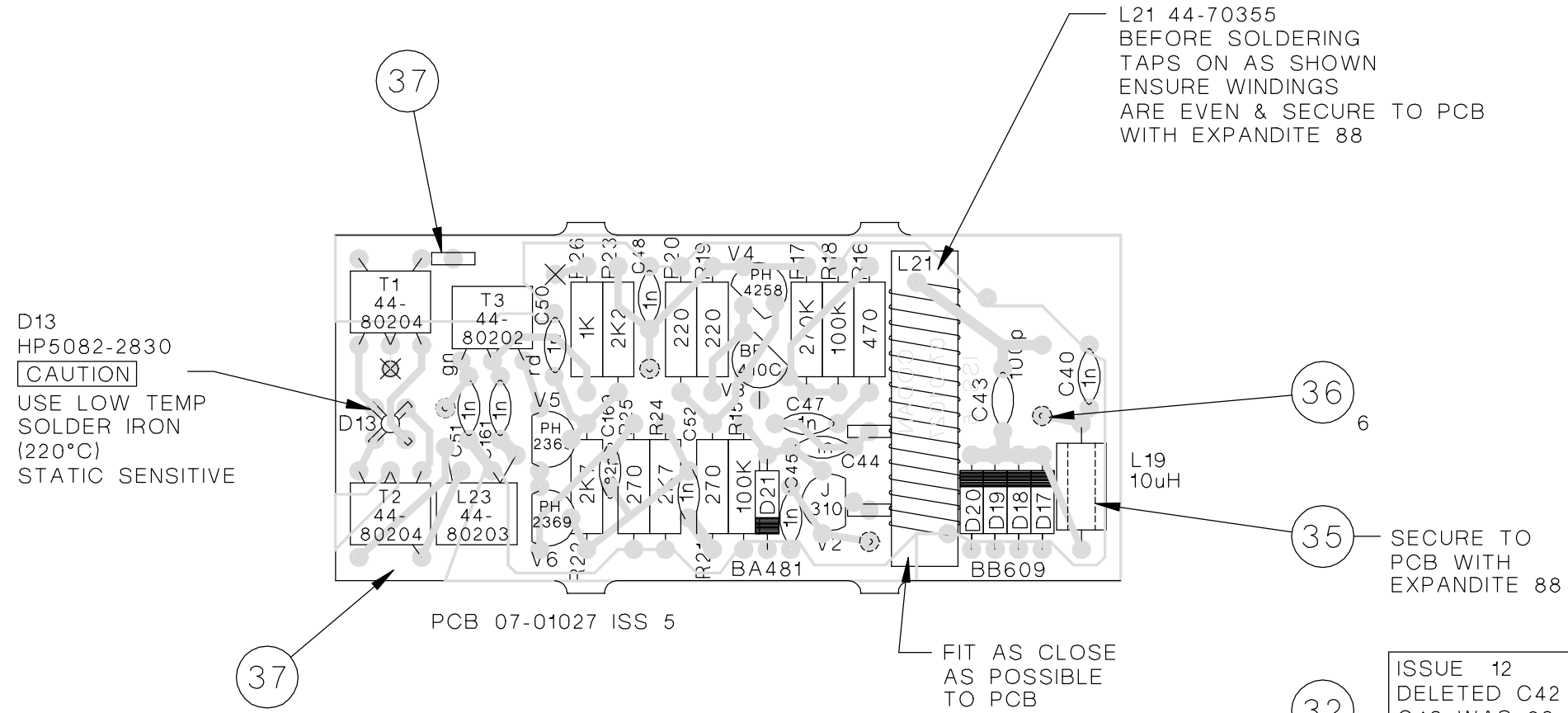
- ALL DIODES BA423
- 44-70373 - bl, rd, bl
44-70356 - bl, bk, bl
- SECURE L26 & L36 TO
PCB USING EXPANDITE 88

FILE NAME
08\03097__5.DWG

	SCALE 2:1		© CODAN PTY LTD, A.C.N. 007 590 605: 1997 TITLE	
	DRN	APJ	DATE 4-7-86	
	CHKD	NJA	18-8-86	
MATERIAL	APPD	NJA 30-10-86		DRAWING/DOC NO.
FINISH	TOLERANCES UNLESS OTHERWISE STATED		A3 08-03097	
	2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR		ISS	SHT. 1 OF 1

1/ 2/ 3/ 4/ 5/ REDRAWN

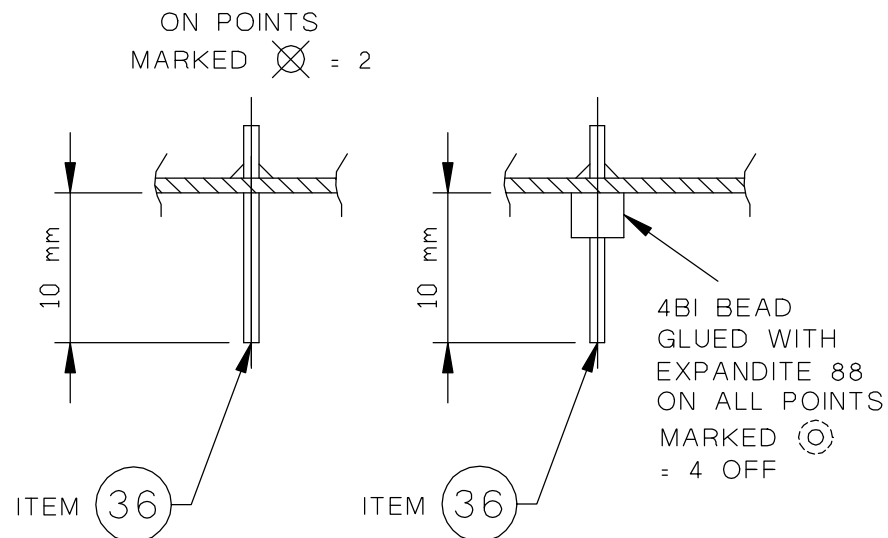
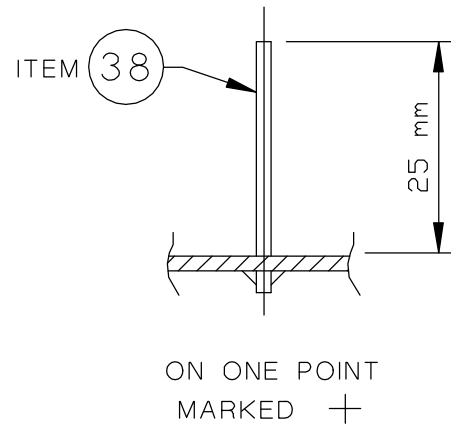
DO NOT SCALE



D13
HP5082-2830
CAUTION
USE LOW TEMP
SOLDER IRON
(220°C)
STATIC SENSITIVE

- NOTE:
- V2 IS 23-20006
 - 44-80202 - ye, bk, ye
44-80203 - ye, rd, ye
44-80204 - ye, gn, ye
 - SECURE T1, T2, T3
& L19 TO PCB WITH
EXPANDITE 88

SOLDER SEAMS
ON BOTH SIDES
OF SHIELDS



WARNING
THIS ASSEMBLY CONTAINS
ELECTRO-STATIC SENSITIVE DEVICES

B. 21080	
ISSUE 2 C/R 21257 7-4-87	NJA
ISSUE 3 SCREW BLOCK DELETED C/R 21289 10-6-87	NJA
ISSUE 4 C42 CHANGED C/R 21374 4-12-87	NJA
ISSUE 5 NOTE ADDED RE- SOLDER SEAMS C/R 21391 15-2-88	NJA
ISSUE 6 V2 WAS J310 C/R 21600 19-8-88	NJA
ISSUE 7 C169 ADDED C/R 21621 22-9-88	NJA
ISSUE 8 V2 CHANGED TO J310 C/R 21836 20-12-88	NJA
ISSUE 9 C169 DELETED C/R 21878 2-3-89	NJA
ISSUE 10 C169 ADDED R17 WAS 390K R19 WAS 180 R26 WAS 470 C43 WAS 56p C/R 21908 28-3-89	NJA
ISSUE 11 C42 CHANGED C/R 24423 15-11-95	CM
ISSUE 12 DELETED C42 C43 WAS 68p C/R 24741 28-11-96	NJA
FILE NAME 08\03098_12.DWG	

		SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1997	
	DRN	APJ	DATE 8-7-86	TITLE VCO1 & MIXER
MATERIAL	CHKD	NJA	18-8-86	DRAWING/DOC NO. 08-03098
FINISH	APPD	NJA	30-10-86	A3
TOLERANCES UNLESS OTHERWISE STATED		ISS		
2 PLACES DEC.		10		
1 PLACE DEC.		11		
0 PLACE DEC.		12		
ANGULAR		REDRAWN		
				SHT. 1 OF 1

ISSUE 11 CONT
 C79 REMOVED
 D46 ADDED
 C80 WAS 10p
 C/R 24741
 04-02-97 JB

ISSUE 12
 -001 & -002 P/No's
 ADDED,
 -002 DETAIL ADDED.
 C/R 25186
 17-12-97 PM

NOTE:

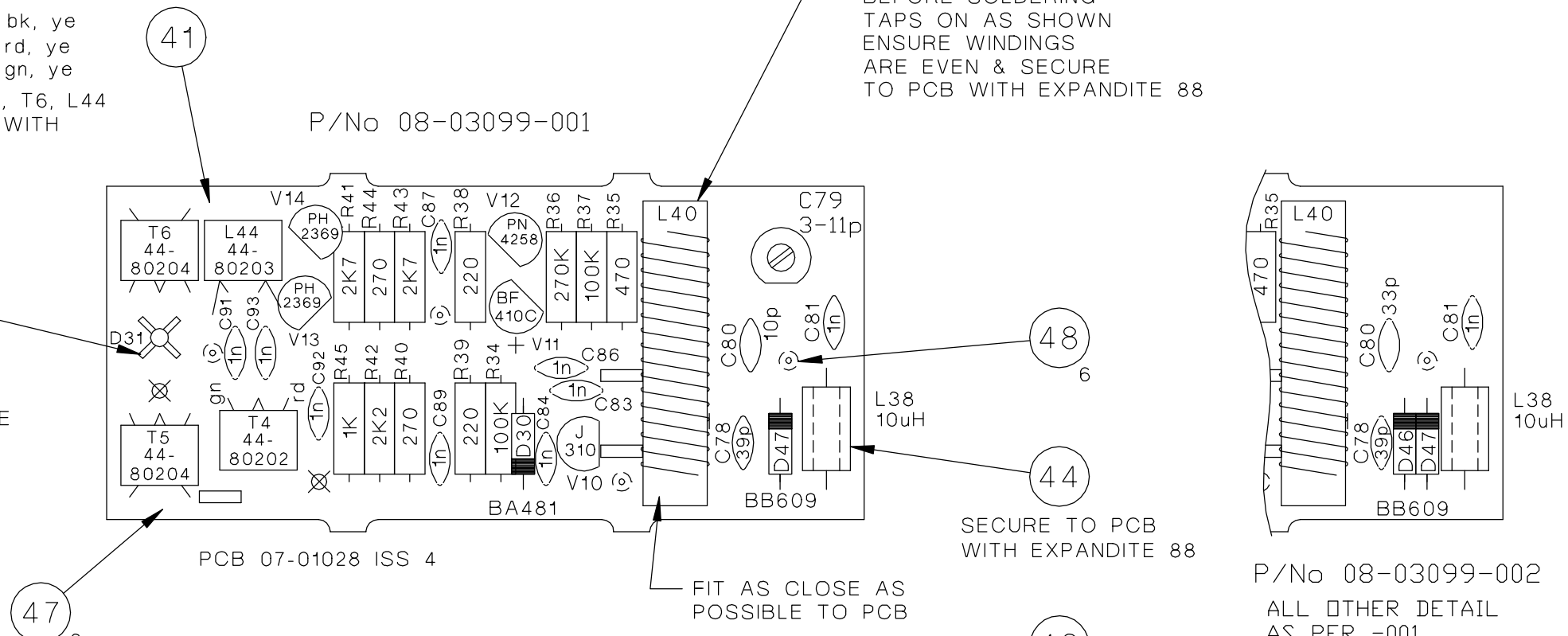
- V10 IS 23-20006
- 44-80202 - ye, bk, ye
 44-80203 - ye, rd, ye
 44-80204 - ye, gn, ye
- SECURE T4, T5, T6, L44
 & L38 TO PCB WITH
 EXPANDITE 88

D31
 HP5082-2830

CAUTION
 USE LOW TEMP
 SOLDER IRON
 (220°C)
 STATIC SENSITIVE

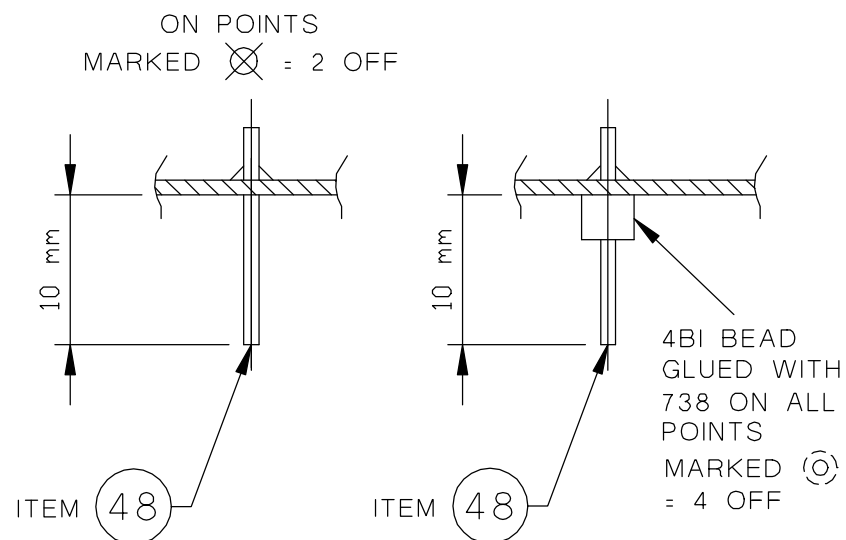
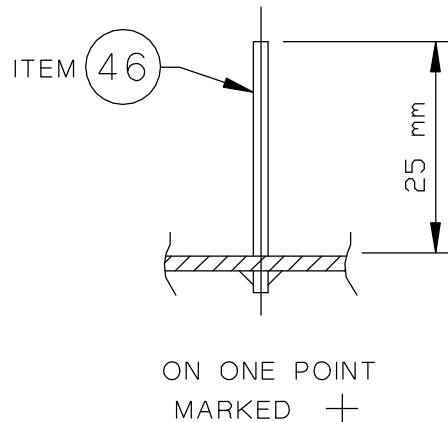
DO NOT SCALE

L40 44-70355
 BEFORE SOLDERING
 TAPS ON AS SHOWN
 ENSURE WINDINGS
 ARE EVEN & SECURE
 TO PCB WITH EXPANDITE 88



B. 21080
 ISSUE 2
 ITEM No'S CHANGED
 RTV CHANGED
 C/R 21257
 9-4-87 NJA
 ISSUE 3
 SCREW BLOCK
 DELETED
 C/R 21289
 10-6-87 NJA
 ISSUE 4
 PCB WAS ISS 1
 HOLES ADDED
 TO ACCOMMODATE
 CAP TYPE CHANGE
 C78 & C80
 C/R 21339
 29-8-87 NJA
 ISSUE 5
 C79 WAS 2-5p
 C/R 21374
 14-12-87 NJA
 ISSUE 6
 NOTE ADDED
 RE-SOLDER SEAMS
 C/R 21391
 15-2-88 NJA
 ISSUE 7
 V10 WAS J310
 C/R 21600
 19-8-88 NJA
 ISSUE 8
 V10 CHANGED
 TO J310
 C/R 21836
 20-12-88 NJA
 ISSUE 9
 R36 WAS 390K
 R38 WAS 180
 R45 WAS 470
 C/R 21908
 28-3-89 NJA
 ISSUE 10
 C79 CHANGED
 C/R 24423
 15-11-95 NJA
 ISSUE 11
 PCB NOW ISS 4
 C/R 24741
 28-11-96 JB

SOLDER SEAMS
 ON BOTH SIDES
 OF SHIELDS

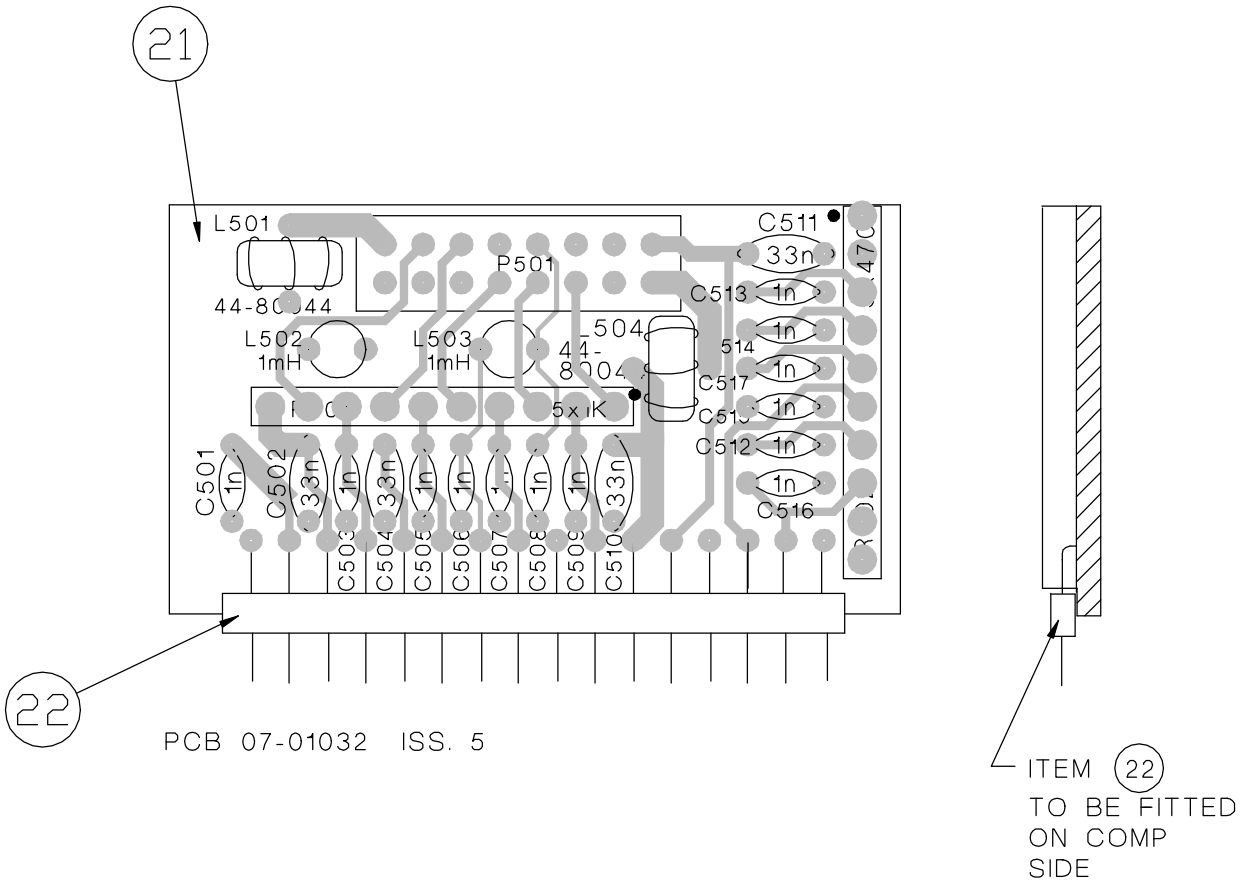


WARNING
 THIS ASSEMBLY CONTAINS
 ELECTRO-STATIC SENSITIVE DEVICES

		SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1997	
	DRN	APJ	DATE 7-7-86	TITLE VCO2 & MIXER
MATERIAL	CHKD	NJA	18-8-86	DRAWING/DOC NO. 08-03099
FINISH	APPD	NJA	30-10-86	
TOLERANCES UNLESS OTHERWISE STATED			A3	ISS 11 12
2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR				

FILE NAME
 08\03099A12.1.DWG

DO NOT SCALE



PCB 07-01032 ISS. 5

ITEM 22
TO BE FITTED
ON COMP
SIDE

ISSUE 2 ITEM No'S CHANGED C/R 21257 9-4-87 NJA	ISSUE 3 IDENT SPOT ON R502 WAS ON WRONG END C/R 21280 27-5-87	ISSUE 4 C/R 21367 22-3-88	ISSUE 5 C/R 21646 BLACK SPOT MOVED 12-10-88 NJA	ISSUE 6 2x2.1 HOLES ADDED C/R 22898 NJA	ISSUE 7 IN LINE WITH PCB ISS. 3 C/R 23287 17-6-92 NJA	ISSUE 8 PCB CHANGED C/R 24450 6-3-96 CM	ISSUE 9 R502 WAS 5x1k, C512/517 TRANSPOSED. C/R 25246 2-3-98 NJA
---	--	---------------------------------	--	---	---	--	--

FILE NAME
08\03127__9.DWG

			SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1997 TITLE FILTER, REMOTE CONTROL
	MATERIAL	DRN	APJ	
FINISH	CHKD	NJA	18-8-86	DRAWING/DOC NO. A4 08-03127
	APPD	NJA	30-10-86	
TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR				ISS 9
				SHT. 1 OF 1

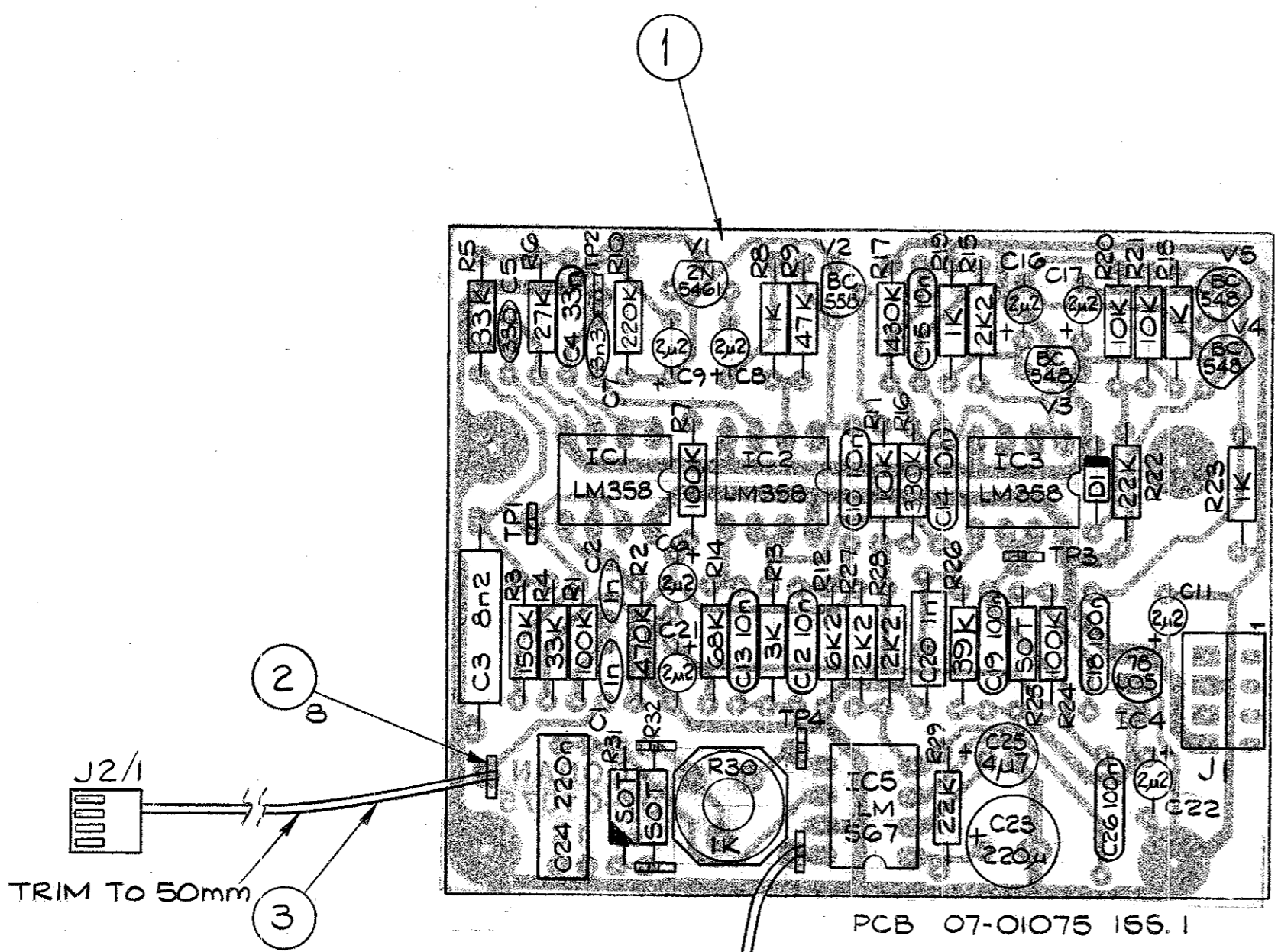
DO NOT SCALE

ISSUE 1
C/R. 21226
10-2-87 *ML*

ISSUE 2
R26 WAS SOT
R31 " CR25
R25 " 39K
C25 " 47μ
C/R. 21354
14-10-87 *ML*

ISSUE 3
R16 WAS 270K
C/R 22276
27-3-90 *ML*

ISSUE 4
C4 WAS 39n
R5 " 27K
C/R 22697
27-3-91 *ML*



FREQ.	R25	R31*
360Hz	47K	10K
440Hz	33K	8K2

* R31 MUST BE METAL FILM

DENOTES METAL FILM RESISTOR

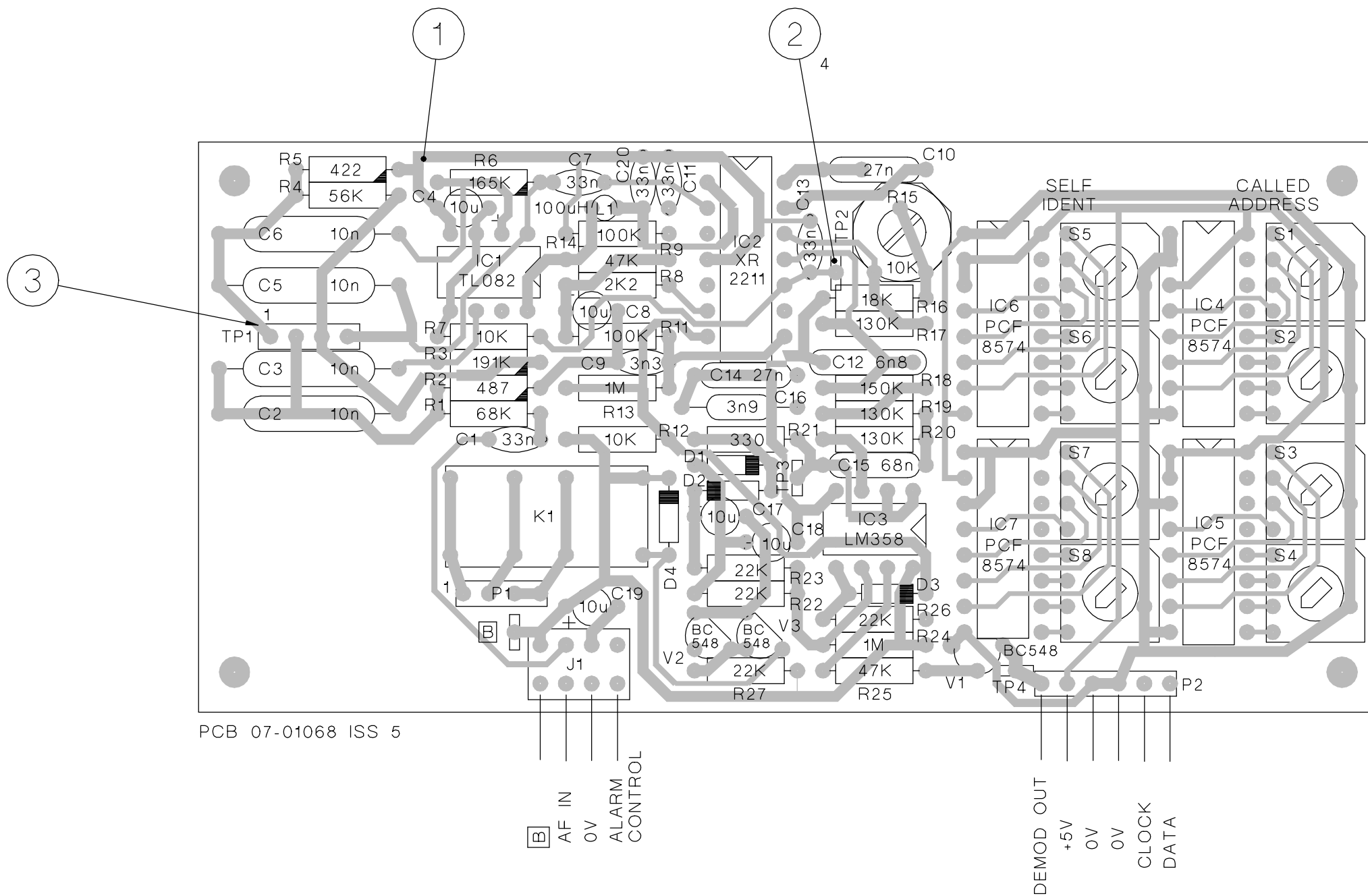
	SCALE		TITLE		COPYRIGHT © CODAN 19	
	DRN.	APJ	DATE	TWO-TONE DECODER		
	CHKD.	<i>ML</i>	12-11-86	PCB		
APPD.	<i>ML</i>	10-2-87	DRAWING	DOC NO.		
FINISH	TOLERANCES		A3		08-03273	
	UNLESS OTHERWISE STATED		ISS	1	2	3
	2 PLACE DEC ±			4		
	1 PLACE DEC ±					
	ANGULAR ±					
						SHT
						OF

08-03273

283

400

DO NOT SCALE



ISSUE B
C/R 21202
16-12-86 NJA

ISSUE 1
C/R 21226
10-2-87 NJA

ISSUE 2
C20 & L1 ADDED
C/R 21339
3-9-87 NJA

ISSUE 3
C/R 22128
VARIANT TABLE
ADDED
15-9-89 NJA


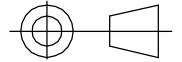
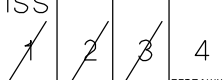
ISSUE 4
C/R 22812
R1 WAS 56K
R3 WAS 196K
15-4-91 NJA

FILE NAME
08\03300_4.DWG

NOTES

1. ALL DIODES ARE BAW62 OR EQUIVALENT
2. RESISTORS SHOWN  ARE 1%

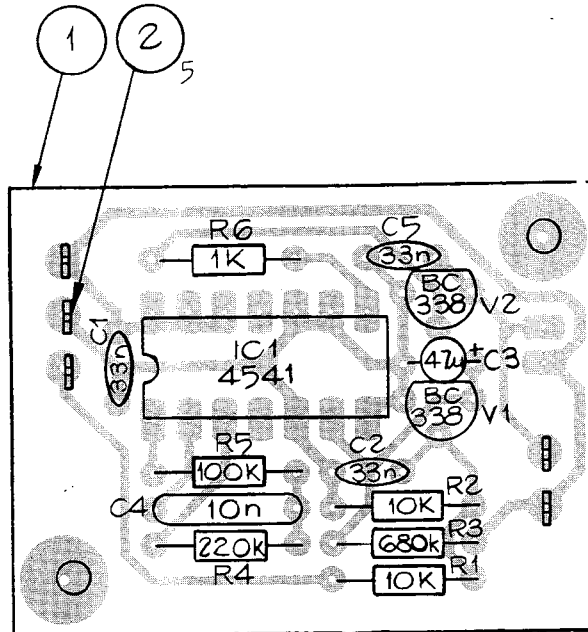
TYPE	ASSY. No	IC6	IC7	IC6	IC7	S1 - S8
SDE	08-03300	✓	✓	✓	✓	✓
SD	08-03300-000	—	—	—	—	—

		SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1987 TITLE SDE, SDEM SELECTIVE CALL
	DRN	APJ	
MATERIAL	CHKD	NJA	12-11-86
FINISH	APPD	NJA	10-2-87
TOLERANCES UNLESS OTHERWISE STATED			DRAWING/DOC NO. 08-03300
2 PLACES DEC. ±0.5 1 PLACE DEC. ±1 0 PLACE DEC. ±1 ANGULAR ±2°			
ISS			SHT. 1 OF 1


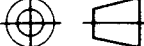
DO NOT SCALE

ISSUE B
R4 VALUE
CHGD FROM
200K
CAN 21697
24-11-88
7/6

ISSUE 2
C3 WAS 2u2
R3 WAS 470K
CIR 23584
24-2-93
M



PCB 07-01113 ISS.2

 CODAN			SCALE	TITLE PCB FAN CONTROLLER	COPYRIGHT © CODAN 19							
	DRN.	O.R.	DATE									
MATERIAL	CHKD.	<i>MJA</i>	11-10-88									
	APPD.	<i>MJA</i>	14-9-89									
FINISH	TOLERANCES UNLESS OTHERWISE STATED			A4	DRAWING/DOC NO.							
	2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±				08-03334							
				ISS	1	2					SHT	1
											OF	1

1 2 3 4 5 6 7 8 9 10 11 12

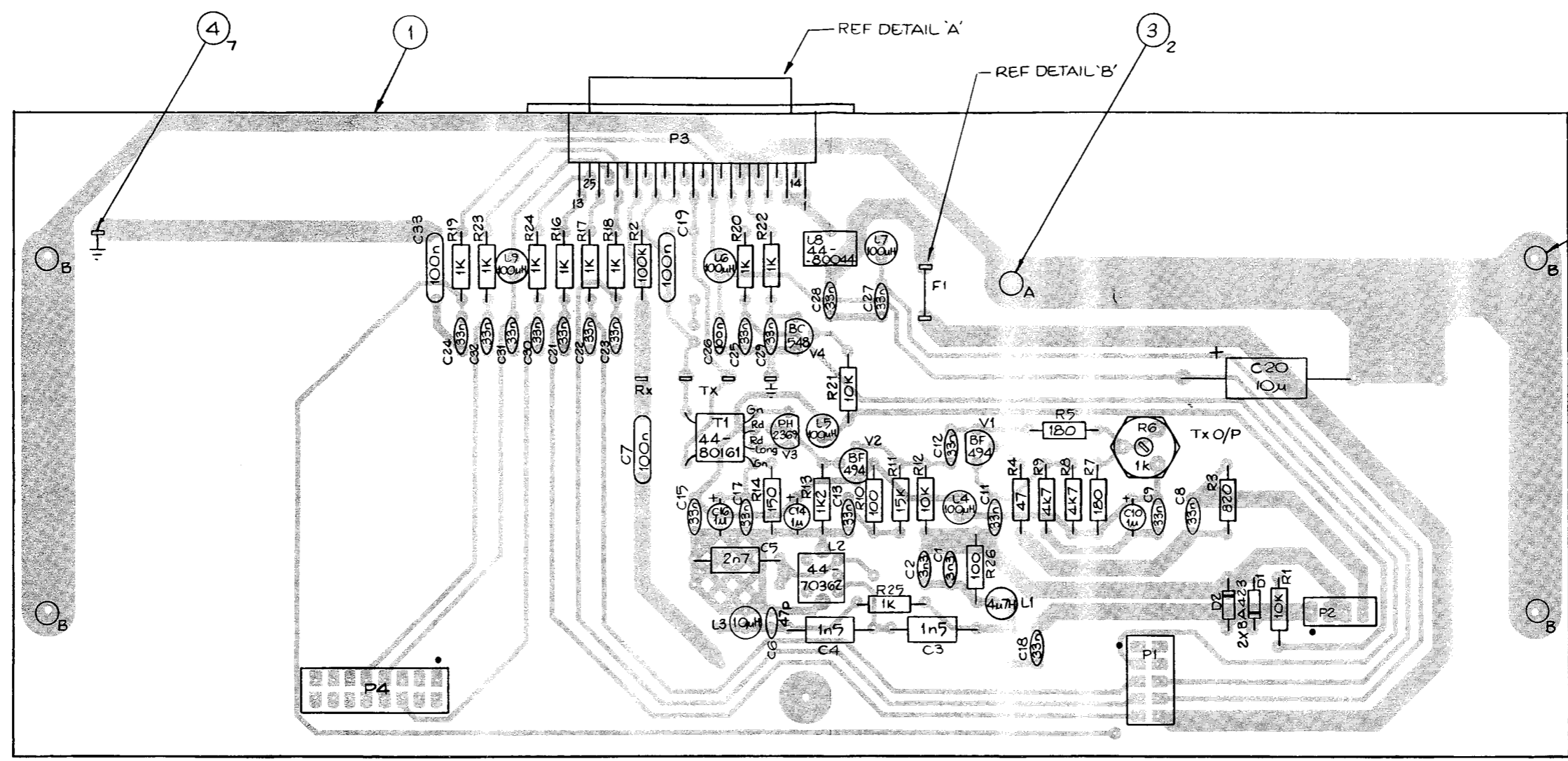
DO NOT SCALE

ISSUE B
C/R 21873
26-1-89 *ML*

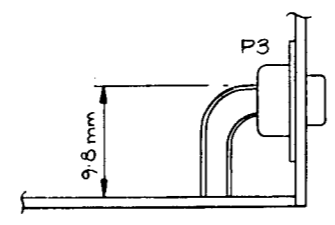
ISSUE C
L3 WAS 94u7H
C/R 21912
31-3-89 *ML*

ISSUE 2
C20 WAS 100u
C26 WAS 33n
C/R 22622
27-3-91 *ML*

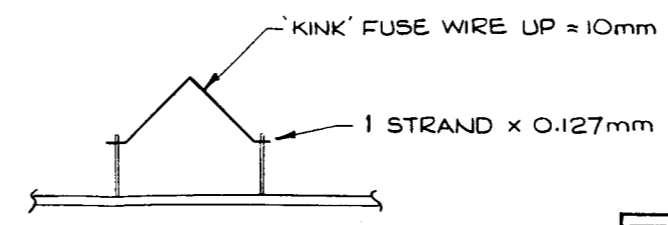
ISSUE 3
C20 LINE
DELETED
C/R 23435
1-10-92 *ML*



PCB 07-01209 155.2



DETAIL 'A'
N.T.S.



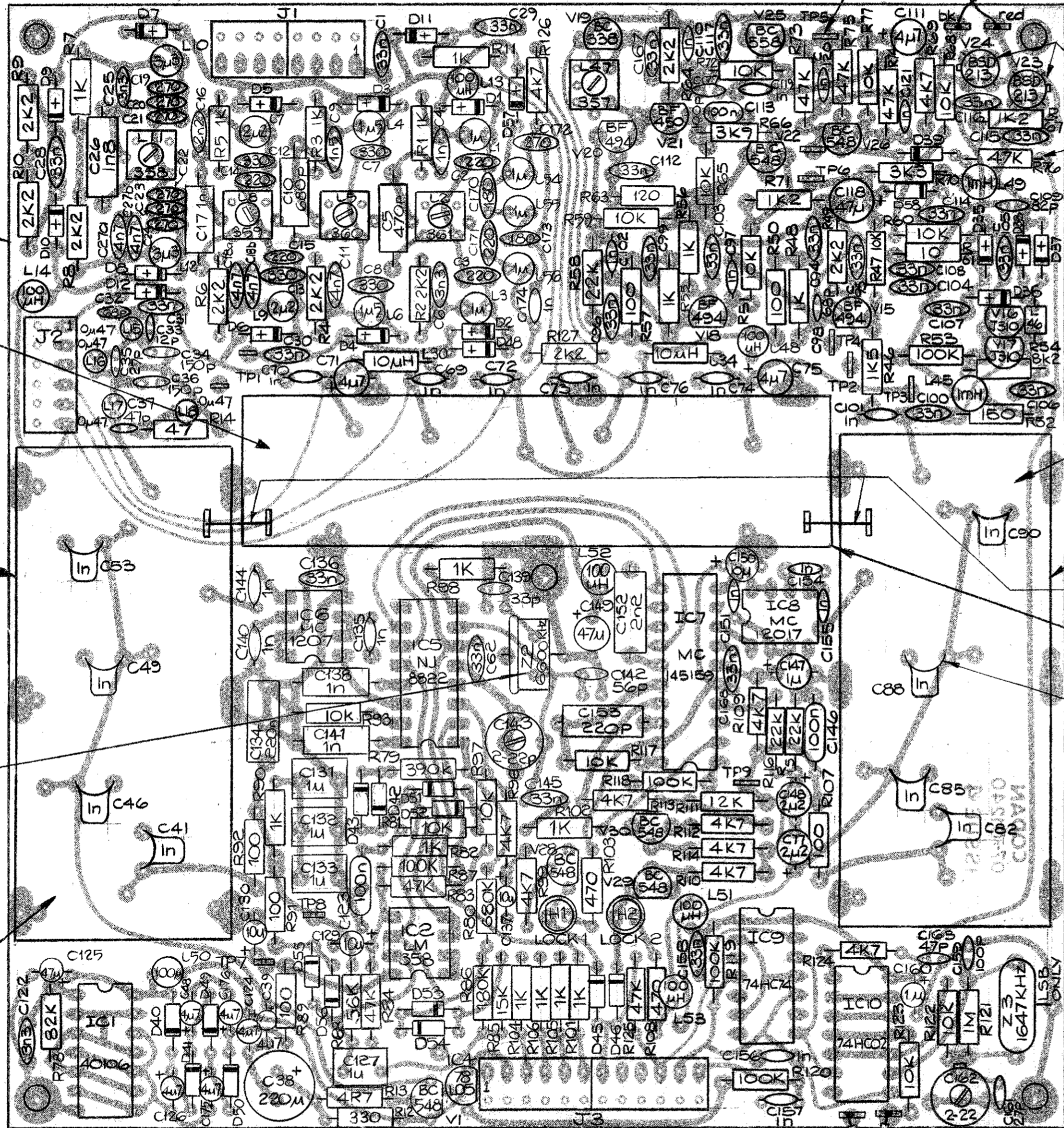
DETAIL 'B'
N.T.S.

NOTE:
ITEMS 2 & 3 FITTED TO
UNDERSIDE OF PCB.

CODAN	DRN.	O.R.	SCALE	TITLE PA/EXCITER INTERFACE	DRAWING/DOC NO. A2 08-03691	ISS 1/23	SHT OF
	CHKD.	DATE 12-9-88	DATE 21-10-88				
MATERIAL	APPD.	DATE 14-9-89	TOLERANCES UNLESS OTHERWISE STATED				
FINISH	2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±						

COPYRIGHT © CODAN 1988

DO NOT SCALE



PCB 07-01240 155.4

screen inner

SEE NOTE 4

CAUTION

V24 & V23
STATIC SENSITIVE

FOLD WIRE
BACK FOR +VE
SUPPLY
CONNECTION

SOLDER 26 GAUGE
TCW TO BODY OF
CLIP FOR GND
CONNECTION.

DETAIL 'A'

XTAL (Z2)

25 SWG TCW TO BE
INSULATED USING
VIDAFLEX.

NOTE ALL 1n CAPACITORS SHOWN
THUS MUST BE LAYED DOWN.
CAPACITORS MAY BE FITTED ON TOP
OF P.C.B UNDER THE BOX ASSY'S OR
ON THE UNDERSIDE OF THE P.C.B.

NOTES:

1. L46 IS A FERRITE BEAD.
2. DIODES MARKED - [+] ARE BA423
ALL UNMARKED DIODES
ARE BA423 OR EQUIVALENT.
3. APPLY A LIBERAL AMOUNT OF
ISONEL 642 AIR DRY VARNISH
TO VCO 1 & 2 COILS: L21, L40
4. REMOVE FOR 8528 S
5. SOLDER ALL TABS & PINS
ON LIDS.

ISSUE B
R79 WAS ~~TOOK~~
CIR 21785
1-6-89 *MJL*

ISSUE C
L17 WAS 0.122
C32 WAS 582P
C34 WAS 180P
C30 WAS 100P
C125 WAS 4M7
C/R 22002
6-7-89 *MJL*

ISSUE D
C160 WAS 33n
CIR 22119
30-8-89 *MJL*

ISSUE 2
D57 WAS D47
C150 " 33n
C142 " 68P
C/R 22151
15-11-89 *MJL*

ISSUE 3
C/R 22284
R62 DELETED
C/R 22252
L52 DESIGN-
NATION ADDED
31-1-90 *MJL*

ISSUE 4
L12 WAS L10
CIR 22516
21-8-90 *MJL*

ISSUE 5
D58 ADDED
CIR 22538
30-8-90 *MJL*

ISSUE 6
DETAIL 'A'
ADDED
C/R 22811
17-4-90 *MJL*

ISSUE 7
R93 WAS 22K
C/R 23151
17-12-91 *MJL*

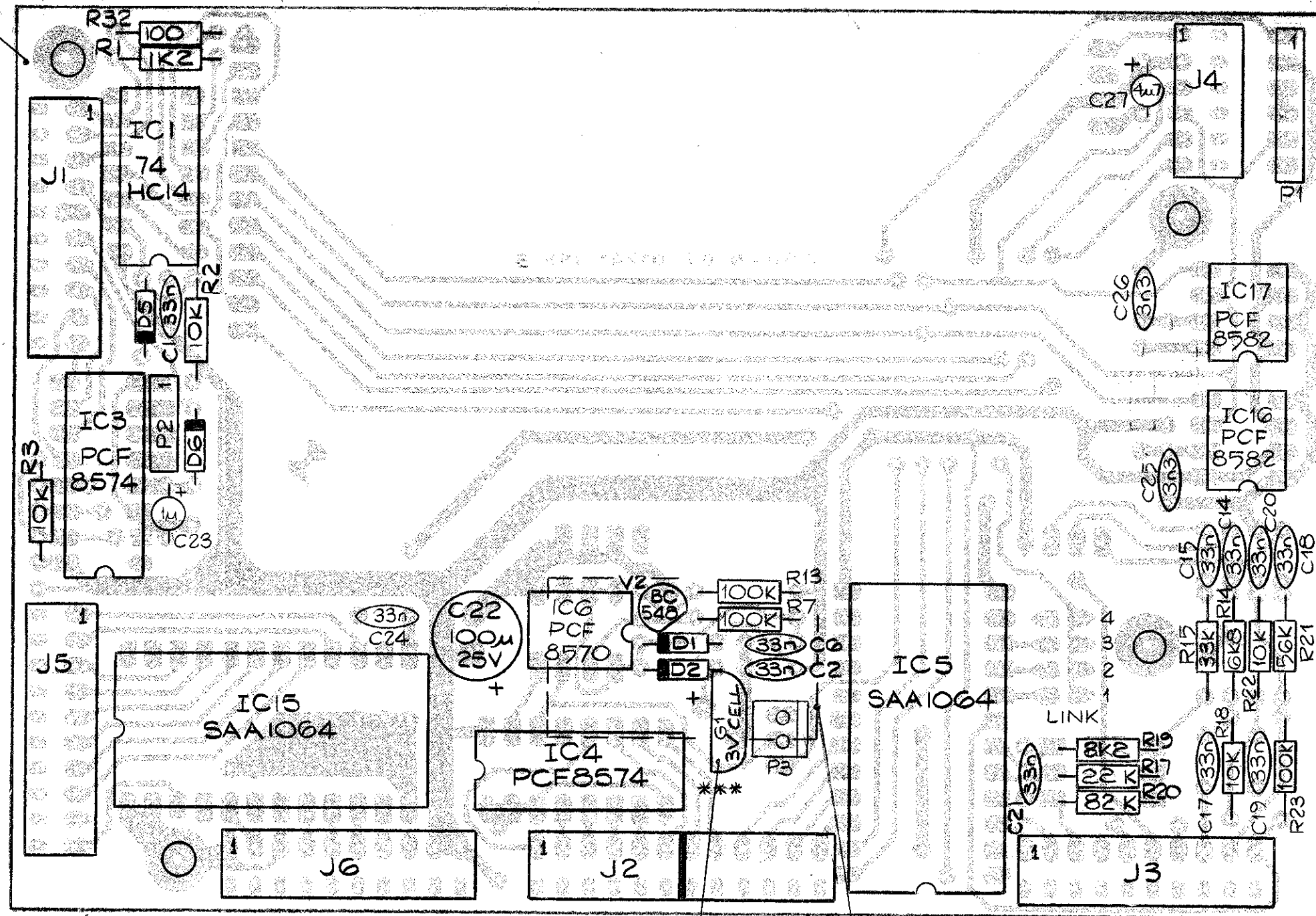
REF DETAIL 'A'

08-03740-001	AS DRAWN

CODAN	SCALE	TITLE	RF, MIXER & DUAL SYNTHESISER PCB	
	DATE		19-10-88	
MATERIAL	CHKD.	APPD.	DRAWING/DOC NO.	
			A2 08-03740	
FINISH	TOLERANCES		ISS	
	UNLESS OTHERWISE STATED		1 2 3 4 5 6 7	
	2 PLACES DEC ±		SHT	
	1 PLACE DEC ±		OF	
	ANGULAR ±			

DO NOT SCALE

21



PCB 07-01241 155.3

NOTES:

1. ALL DIODES BAW62 OR EQUIVALENT.
2. *** 3 VOLT CELL MUST BE FITTED LAST MANUALLY
3. FIT ITEM (23) OVER G1
4. FIT ITEM (22) UNDER PCB AS SHOWN

CAUTION

	SCALE		TITLE		COPYRIGHT © CODAN 1986	
	DRN.	O.R.	DATE	MICROPROCESSOR INTERFACE		
MATERIAL	CHKD.	APPD.	12-10-88	DRAWING/DOC NO.		
			14-4-89	A3 08-03741		
			14-9-89	ISS		
FINISH	TOLERANCES UNLESS OTHERWISE STATED			SHT		
	2 PLACES DEC ±			1 2 3 4		
	1 PLACE DEC ±			OF		
	ANGULAR ±					

155.8
 C27 ADDED
 CIR 21985
 20-6-89
 ISSUE 2
 C/R 22289
 R17 WAS 33K
 R19 WAS 15K
 30-1-90
 ISSUE 3
 P3 ADDED
 CIR 22538
 27-8-90
 ISSUE 4
 R33+R34 (56k)
 DELETED
 CIR 26775
 9-11-90

23

22

283

400

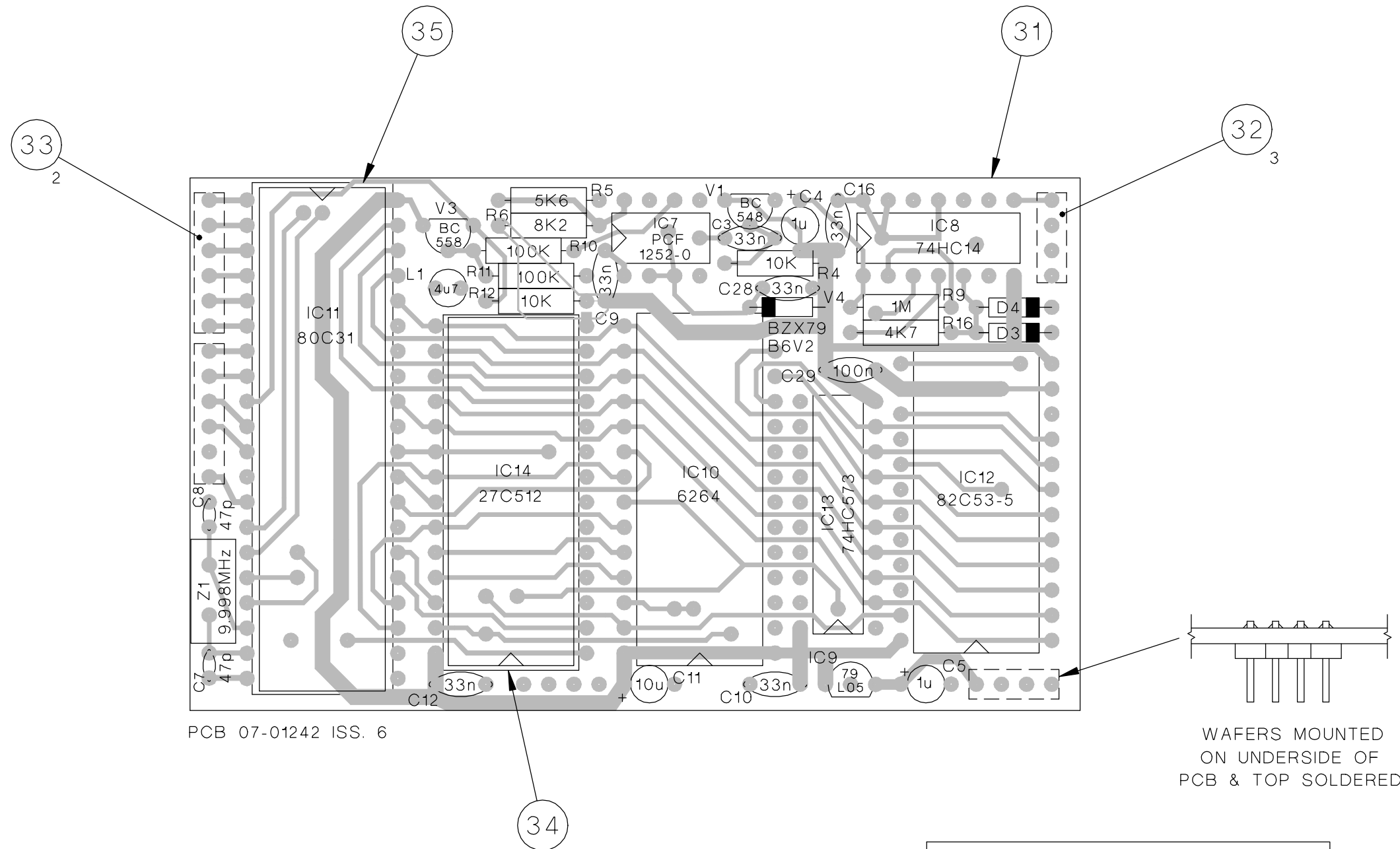
DO NOT SCALE

ISSUE 2
L1 WAS 100uH
C/R 22151
15-11-89 NJA

ISSUE 3
C/R 22252
31-01-90 NJA

ISSUE 4
C28, 29, V4 ADDED
C9 WAS 10u
R6 WAS 1K
IC7 WAS PCF1251
R8, 2K2 DELETED
C/R 22440
25-04-90 NJA

ISSUE 5
R12 WAS 100K
C/R 23422
02-09-92 CM



PCB 07-01242 ISS. 6

WAFERS MOUNTED
ON UNDERSIDE OF
PCB & TOP SOLDERED

WARNING
THIS ASSEMBLY CONTAINS
ELECTRO-STATIC SENSITIVE DEVICES

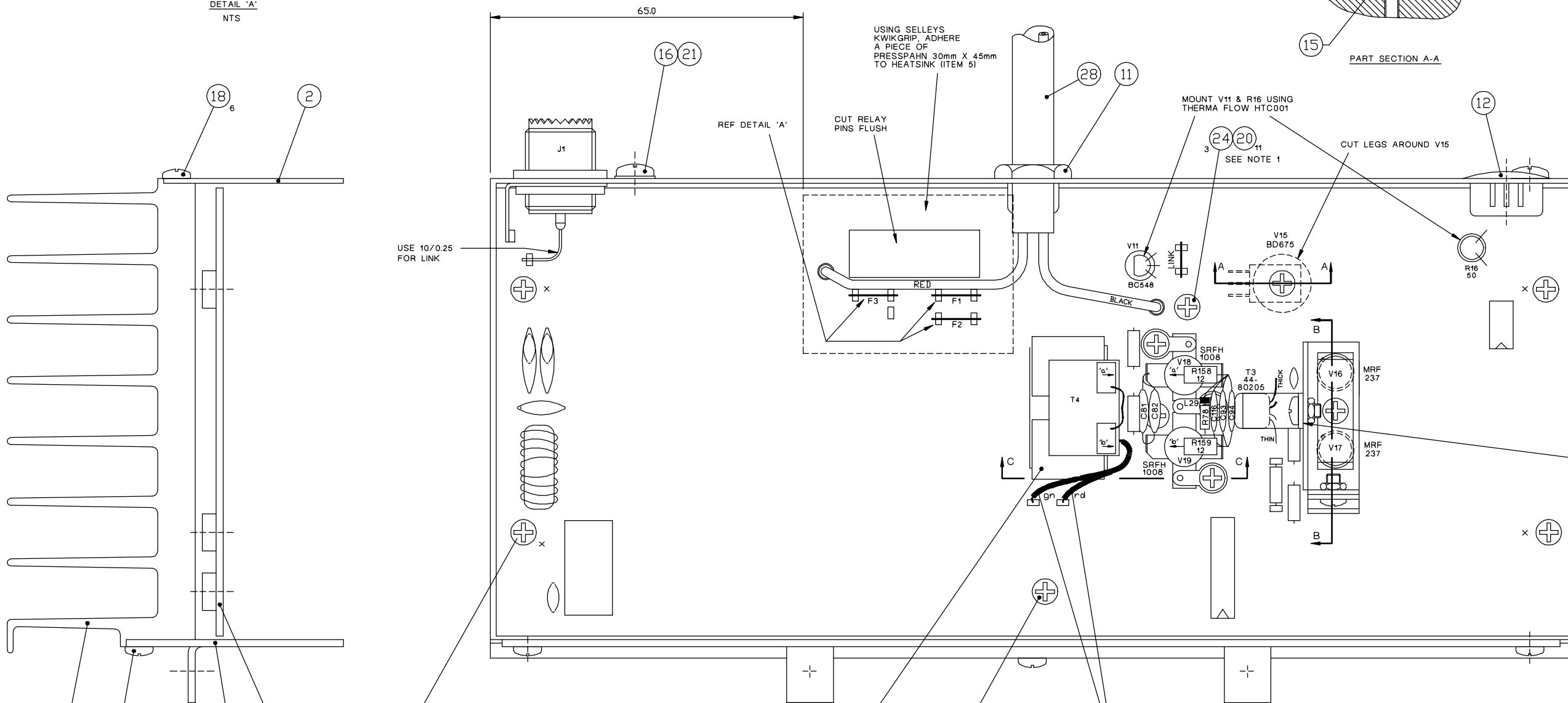
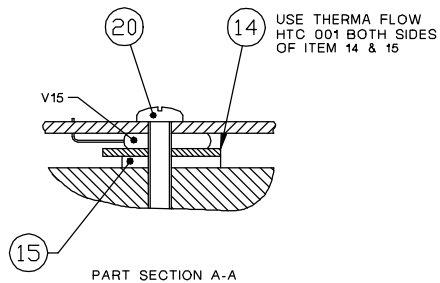
FILE NAME
08\03742_5.DWG

			SCALE	© CODAN PTY LTD, A.C.N. 007 590 605: 1997			
	DRN	CF	DATE	TITLE			
MATERIAL	CHKD	NJA	12-10-88	MICROPROCESSOR ASSY.			
FINISH	APPD	NJA	19-04-89	DRAWING/DOC NO.			
	TOLERANCES UNLESS OTHERWISE STATED			A3	08-03742		
2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR			ISS	SHT. 1			
			5	OF 1			
			REDRAWN				

DO NOT SCALE

'KINK' FUSE WIRE UP ≈ 10mm
F1 & F3 : 1x0.127mm STRAND TCW
F2: 2x0.2mm STRAND TCW

DETAIL 'A'
NTS



USE 10/0.25 FOR LINK

REF DETAIL 'A'

USING SELLEYS KWIKGRIP, ADHERE A PIECE OF PRESSPAHN 30mm X 45mm TO HEATSINK (ITEM 6)

CUT RELAY PINS FLUSH

MOUNT V11 & R16 USING THERMA FLOW HTC001

SEE NOTE 1

CUT LEGS AROUND V15

SEE NOTE 1
ENSURE SHORT (3mm) STANDOFFS ARE FITTED IN POSITIONS SHOWN THUS X

MOUNT T4 FLUSH WITH END OF HEATSINK & AS CLOSE AS POSSIBLE TO V18 & V19.

APPLY LOCTITE 290 BETWEEN HEATSINK (ITEM 34) AND CORE

R58 & R59 TO BE MOUNTED AS CLOSE AS POSSIBLE TO V18 & V19

NOTE MNTG HOLE IS OFFSET. FIT T4 WITH CARE!

USE THERMA-FLOW HTC001 BOTH SIDES

BEND 2 TABS AT 90°, 1.5 mm FROM ENDS (BOTH TRANSISTORS) AS SHOWN

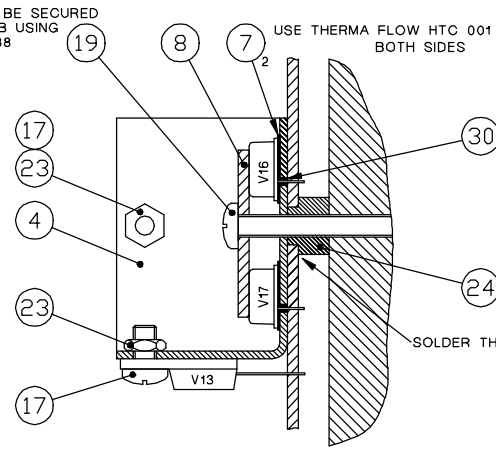
USE THERMA FLOW HTC 001 BOTH SIDES

T3 TO BE SECURED TO PCB USING RTV 738

USE THERMA FLOW HTC 001 BOTH SIDES

SOLDER THIS SIDE ONLY

PART SECTION B-B



NOTES:

- 1. SOLDER ITEMS 24 AND 25 ON UNDER SIDE OF PCB, WHERE POSSIBLE.
- 2. SECURE L29 TO WIRE USING EXPANDITE 88

PART SECTION C-C

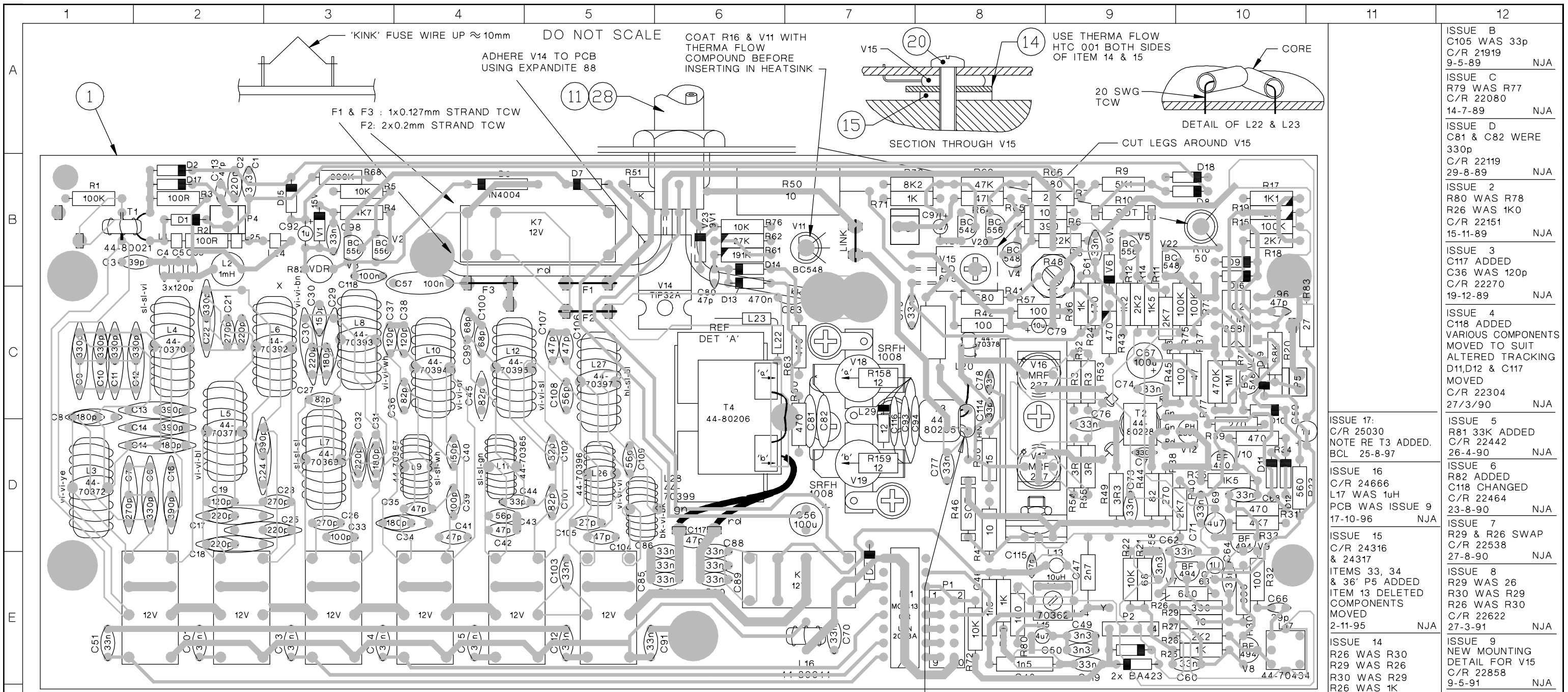
ASSY No.	TYPE
08-03743-001	8525/8528
08-03743-002	8727

DIMENSIONS IN mm

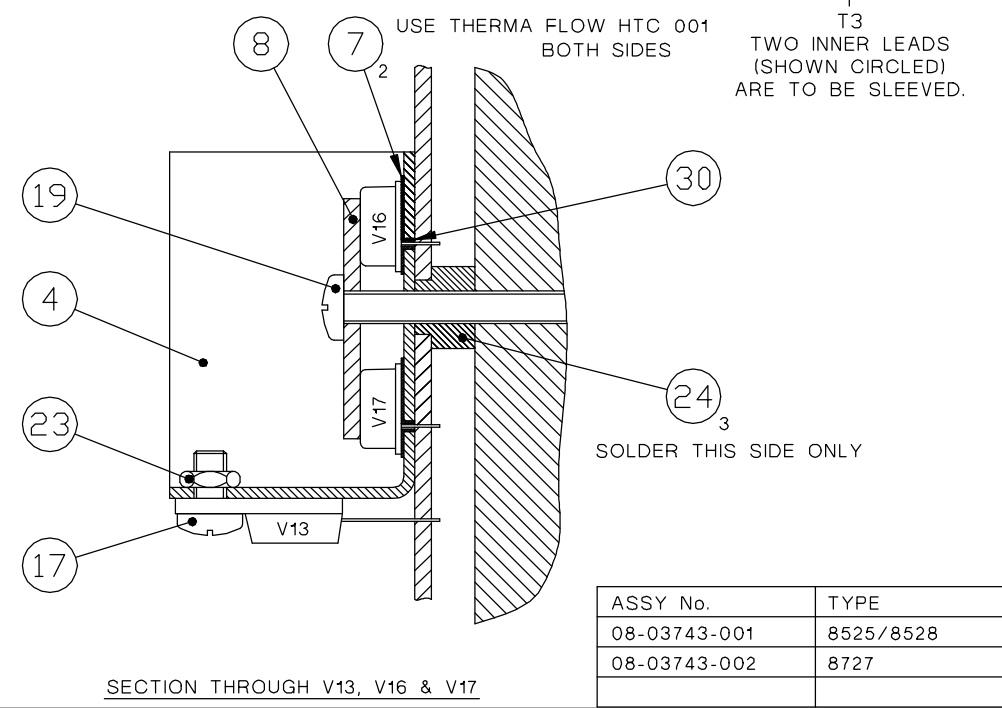
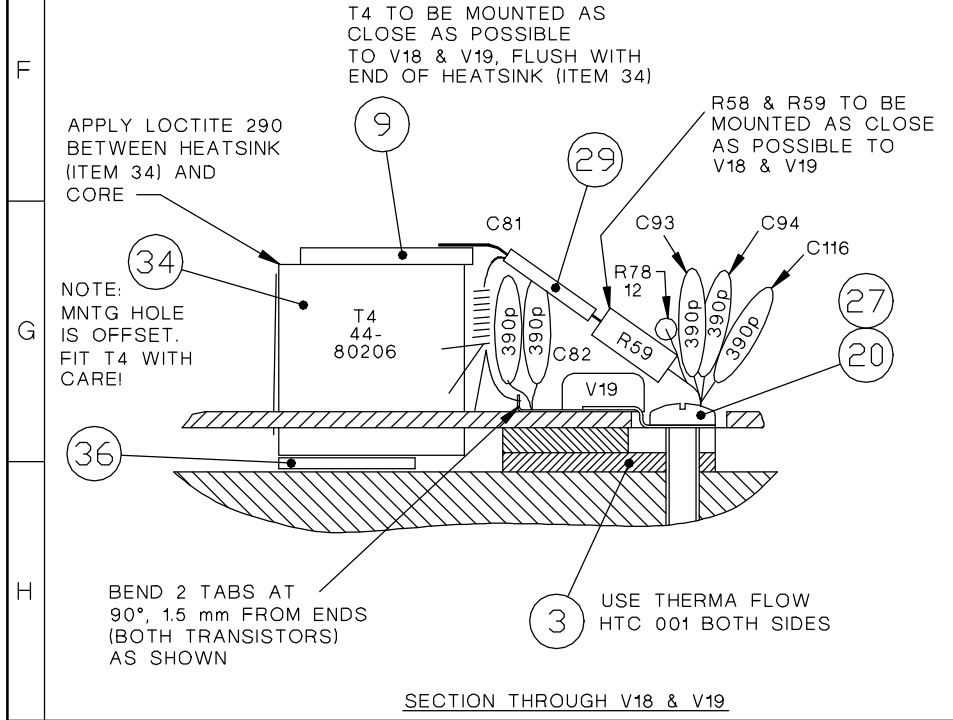
ISSUE B
REF SHT 2
ISSUE C
REF SHT 2
ISSUE D
C81 & C82 WERE
330p
C/R 22119 NJA
ISSUE 2
REF SHT 2 NJA
ISSUE 3
C117 ADDED
C/R 22270
20-12-89 NJA
ISSUE 4
C117 REMOVED
C/R 22304
27/3/90 NJA
ISSUE 5
REF SHT 2
ISSUE 6
REF SHT 2
ISSUE 7
REF SHT 2
ISSUE 8
REF SHT 2
ISSUE 9
REF SHT 2
ISSUE 10
REF SHT 2
ISSUE 11
REF SHT 2
ISSUE 12
ITEM 30 WAS
ITEM 29
C/R 23681
9-8-93
ISSUE 13
REF SHT 2
ISSUE 14
REF SHT 2
ISSUE 15
C/R 24316 &
24317
ITEMS 33,34
& 36 ADDED
REF SHT 2 ALSO
2-11-95 NJA
ISSUE 16
C/R 24666
REF SHT 2
ISSUE 17:
C/R 25030
REFER SHT 2



FILE NAME
08\03743A17.DWG

CODAN	SCALE	2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1997			
	DRN	CF		DATE	20-10-88	
MATERIAL	CHKD	NJA	19-4-89	PA ASSEMBLY C/W HEATSINK		
FINISH	APPD	NJA	14-9-89	DRAWING/DOC NO.		
	TOLERANCES UNLESS OTHERWISE STATED			A1	08-03743	
				ISS	11 12 13 14 15 16 17	SHT. 1 OF 2



PCB 07-01243 ISS. 10



- NOTES:
1. ALL DIODES ARE BAW62 OR EQUIV. UNLESS OTHERWISE STATED.
 2. L1, L24, L25, L29 ARE FERRITE BEADS.
 3. CAPACITORS SHOWN THUS  ARE FOR DIFFERENT LEAD SPACINGS AND SIZE
 4. RESISTORS SHOWN  ARE ±2%
 5. SECURE ALL INDUCTORS & TRANSFORMERS TO PCB USING EXPANDITE 88
 6. SECURE L29 TO WIRE USING EXPANDITE 88

ASSY No.	TYPE
08-03743-001	8525/8528
08-03743-002	8727

MATERIAL	SCALE 2:1	
	DRN	DATE 12-10-88
	CF	19-4-89
FINISH	APPD	14-9-89
	TOLERANCES UNLESS OTHERWISE STATED	
2 PLACES DEC.		A2
1 PLACE DEC.		
0 PLACE DEC. ANGULAR		

© CODAN PTY LTD, A.C.N. 007 590 605: 1997	
TITLE PA & FILTER PCB ASSY	
DRAWING/DOC NO. 08-03743	
ISS	SHT. 2 OF 2

- ISSUE B
C105 WAS 33p
C/R 21919
9-5-89 NJA
- ISSUE C
R79 WAS R77
C/R 22080
14-7-89 NJA
- ISSUE D
C81 & C82 WERE 330p
C/R 22119
29-8-89 NJA
- ISSUE 2
R80 WAS R78
R26 WAS 1K0
C/R 22151
15-11-89 NJA
- ISSUE 3
C117 ADDED
C36 WAS 120p
C/R 22270
19-12-89 NJA
- ISSUE 4
C118 ADDED
VARIOUS COMPONENTS MOVED TO SUIT
ALTERED TRACKING
D11, D12 & C117 MOVED
C/R 22304
27/3/90 NJA
- ISSUE 5
R81 33K ADDED
C/R 22442
26-4-90 NJA
- ISSUE 6
R82 ADDED
C118 CHANGED
C/R 22464
23-8-90 NJA
- ISSUE 7
R29 & R26 SWAP
C/R 22538
27-8-90 NJA
- ISSUE 8
R29 WAS 26
R30 WAS R29
R26 WAS R30
C/R 22622
27-3-91 NJA
- ISSUE 9
NEW MOUNTING
DETAIL FOR V15
C/R 22858
9-5-91 NJA
- ISSUE 10
C116 CHANGED TO C119
C/R 23227
1-7-92 NJA
- ISSUE 11
D18 ADDED
C/R 23558
DIA FUSE WIRE CHANGED
C/R 23497
16-2-93 NJA
- ISSUE 12
ITEM 30 WAS 29
C/R 23681
9-8-92 NJA
- FILE NAME 08\03743B17.DWG

ISSUE 17:
C/R 25030
NOTE RE T3 ADDED.
BCL 25-8-97

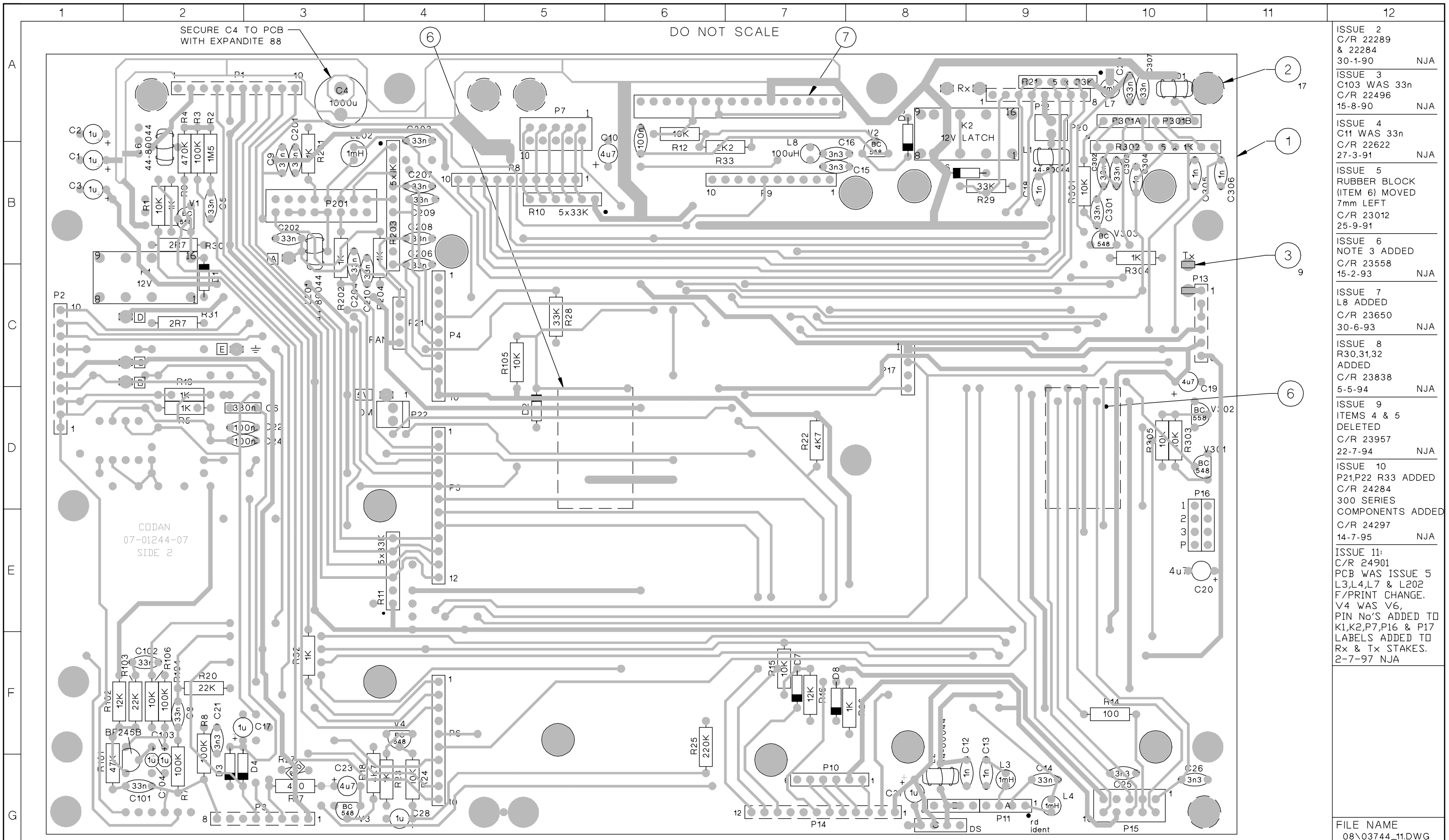
ISSUE 15
C/R 24316 & 24317
ITEMS 33, 34 & 36 P5 ADDED
ITEM 13 DELETED
COMPONENTS MOVED
2-11-95 NJA

ISSUE 14
R26 WAS R30
R29 WAS R26
R30 WAS R29
R26 WAS 1K
R29 WAS 680
C/R 24233
17-5-95 NJA

ISSUE 13
R20 WAS 100K
R23 WAS 390
R26 WAS 1K
R33 WAS 1K
C2 WAS 3n3
C59 WAS 4u7
C69 WAS 33n
V24, D19 & R83 ADDED. R81 DELETED
C/R 24080
V18, V19 SOLDER LUGS CHANGED
C/R 23873
14-11-94 NJA

ISSUE 16
C/R 24666
L17 WAS 1uH
PCB WAS ISSUE 9
17-10-96 NJA

ISSUE 17:
C/R 25030
NOTE RE T3 ADDED.
BCL 25-8-97



ISSUE 2
C/R 22289
& 22284
30-1-90 NJA

ISSUE 3
C103 WAS 33n
C/R 22496
15-8-90 NJA

ISSUE 4
C11 WAS 33n
C/R 22622
27-3-91 NJA

ISSUE 5
RUBBER BLOCK
(ITEM 6) MOVED
7mm LEFT
C/R 23012
25-9-91

ISSUE 6
NOTE 3 ADDED
C/R 23558
15-2-93 NJA

ISSUE 7
L8 ADDED
C/R 23650
30-6-93 NJA

ISSUE 8
R30,31,32
ADDED
C/R 23838
5-5-94 NJA

ISSUE 9
ITEMS 4 & 5
DELETED
C/R 23957
22-7-94 NJA

ISSUE 10
P21,P22 R33 ADDED
C/R 24284
300 SERIES
COMPONENTS ADDED
C/R 24297
14-7-95 NJA

ISSUE 11:
C/R 24901
PCB WAS ISSUE 5
L3,L4,L7 & L202
F/PRINT CHANGE.
V4 WAS V6,
PIN No'S ADDED TO
K1,K2,P7,P16 & P17
LABELS ADDED TO
Rx & Tx STAKES.
2-7-97 NJA

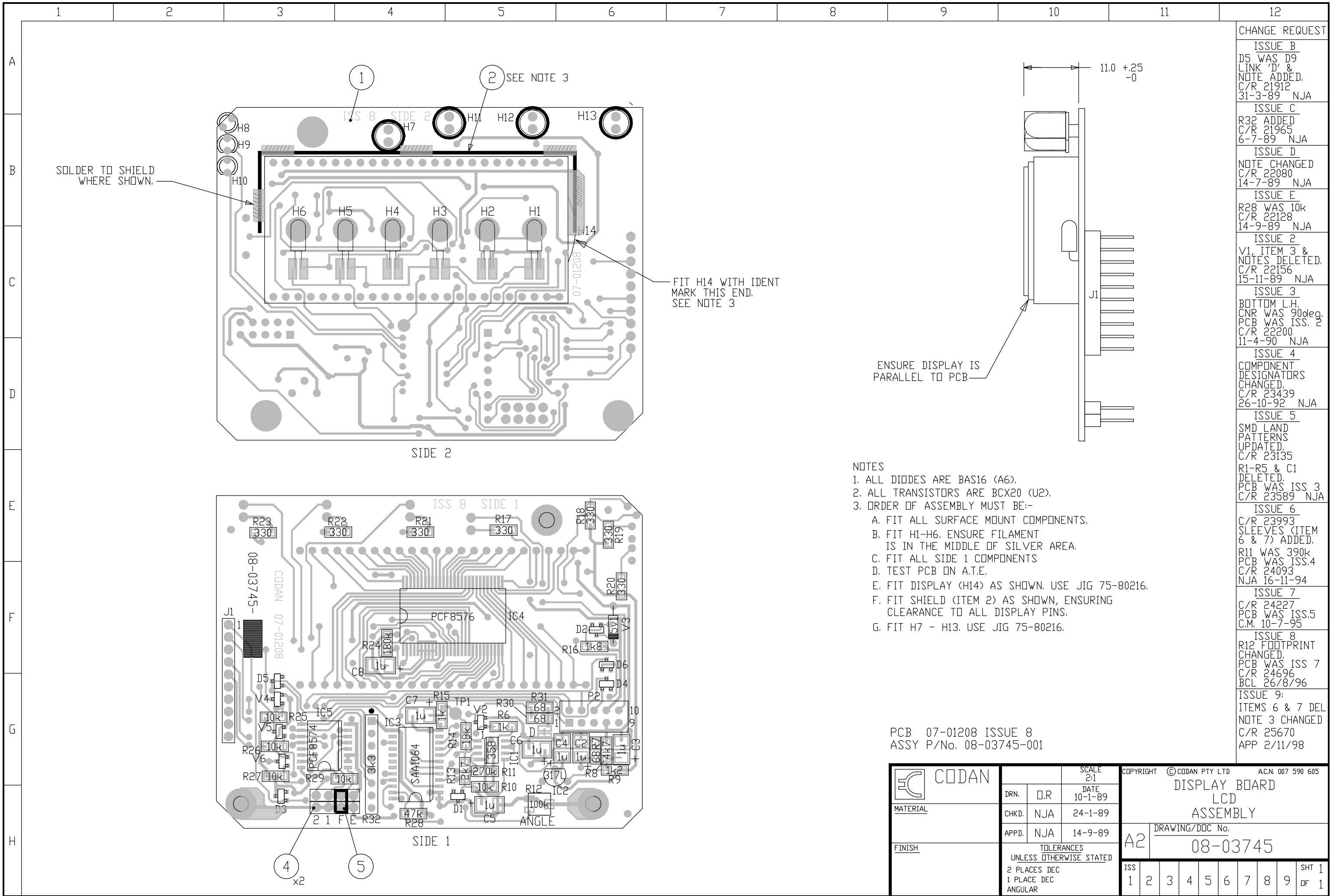
FILE NAME
08\03744_11.DWG

PCB 07-01244-07

- NOTES.
1. ALL DIODES BAW62 OR EQUIV.
 2. ADHERE ITEMS (6) TO PCB WITH KWIKGRIP IN POSITIONS SHOWN.
 3. FIT A 470 OHM RESISTOR ACROSS R17 WHEN OPTION CB IS FITTED.

08-03744-001	AS DRAWN

	SCALE	2:1	© CODAN PTY LTD, A.C.N. 007 590 605: 1997 TITLE MOTHER BOARD
	DRN	CF	
MATERIAL	CHKD	NJA	19-4-89
	APPD	NJA	14-9-89
FINISH	TOLERANCES UNLESS OTHERWISE STATED		A2 08-03744
	2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR		
DIMENSIONS IN mm			ISS 5/6/7/8/9/10/11 SHT. 1 OF 1

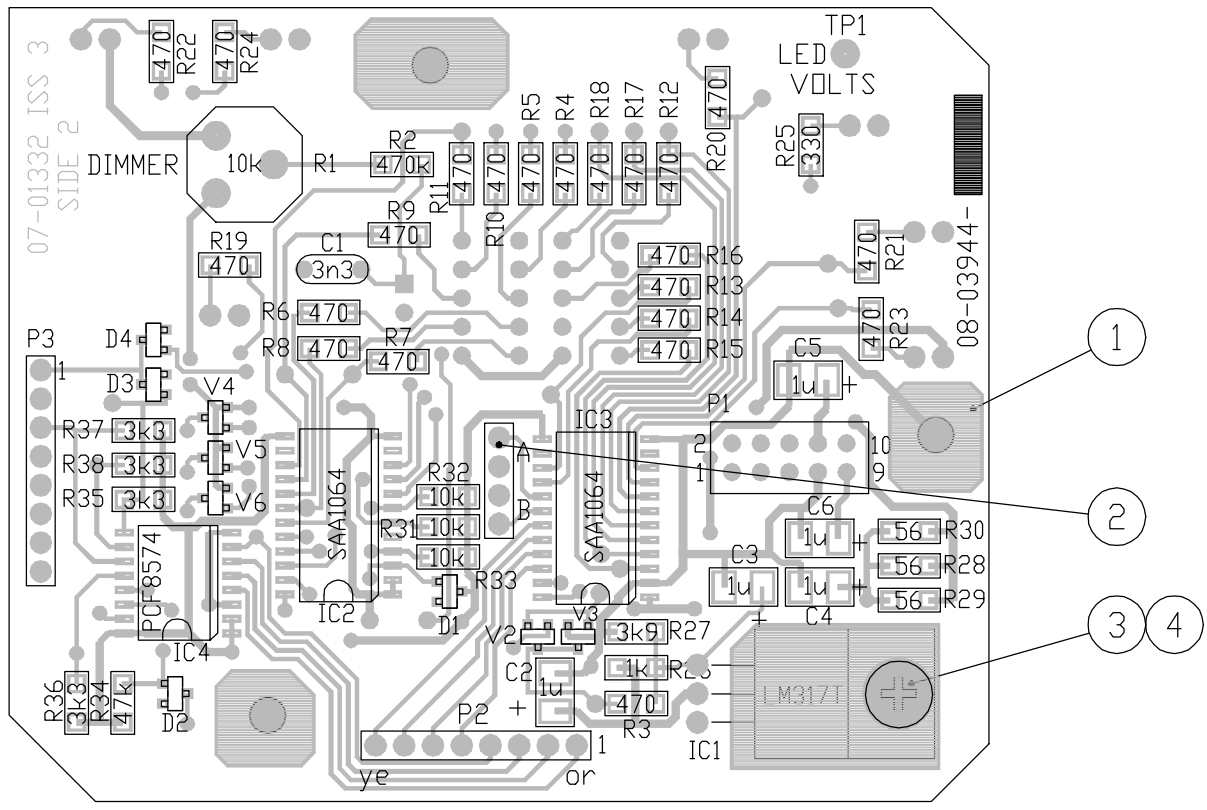
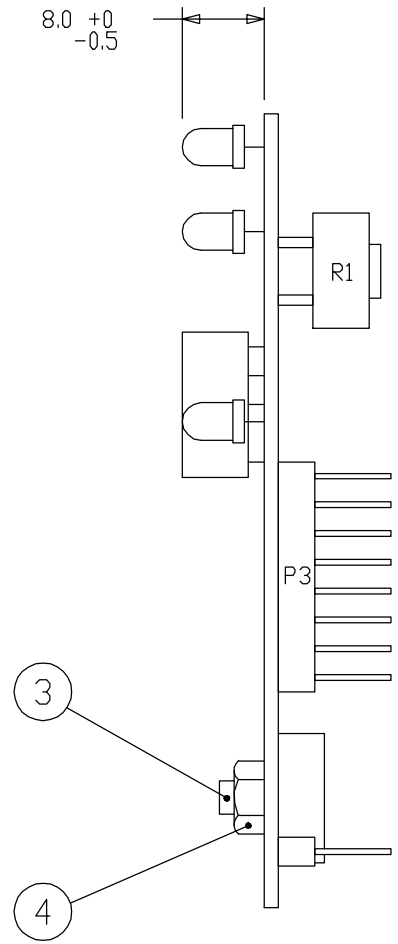
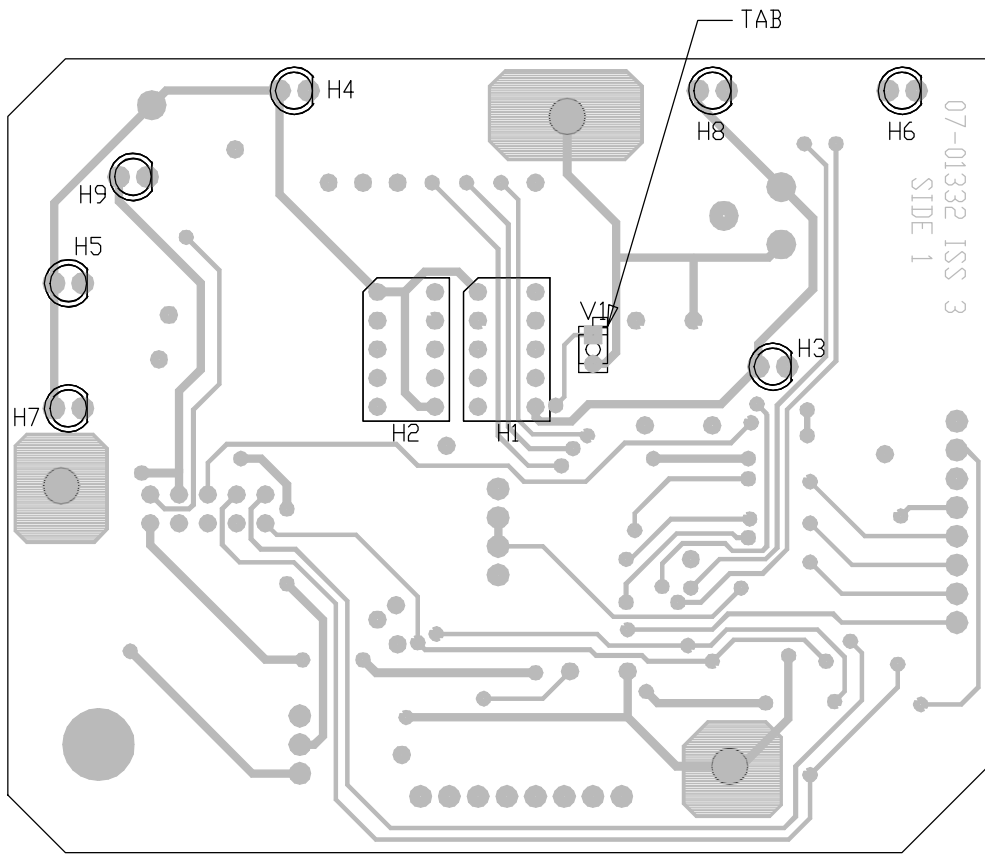


CHANGE REQUEST									
ISSUE B									
D5 WAS D9									
LINK 'D' &									
NOTE ADDED.									
C/R 21912									
31-3-89 NJA									
ISSUE C									
R32 ADDED									
C/R 21965									
6-7-89 NJA									
ISSUE D									
NOTE CHANGED									
C/R 22080									
14-7-89 NJA									
ISSUE E									
R28 WAS 10k									
C/R 22128									
14-9-89 NJA									
ISSUE 2									
V1, ITEM 3 &									
NOTES DELETED.									
C/R 22156									
15-11-89 NJA									
ISSUE 3									
BOTTOM L.H.									
CNR WAS 90deg.									
PCB WAS ISS. 2									
C/R 22200									
11-4-90 NJA									
ISSUE 4									
COMPONENT									
DESIGNATORS									
CHANGED.									
C/R 23439									
26-10-92 NJA									
ISSUE 5									
SMD LAND									
PATTERNS									
UPDATED.									
C/R 23135									
R1-R5 & C1									
DELETED.									
PCB WAS ISS. 3									
C/R 23589 NJA									
ISSUE 6									
C/R 23993									
SLEEVES (ITEM									
6 & 7) ADDED.									
R11 WAS 390k									
PCB WAS ISS.4									
C/R 24093									
NJA 16-11-94									
ISSUE 7									
C/R 24227									
PCB WAS ISS.5									
C.M. 10-7-95									
ISSUE 8									
R12 FOOTPRINT									
CHANGED.									
PCB WAS ISS 7									
C/R 24696									
BCL 26/8/96									
ISSUE 9:									
ITEMS 6 & 7 DEL									
NOTE 3 CHANGED									
C/R 25670									
APP 2/11/98									

- NOTES
- ALL DIODES ARE BAS16 (A6).
 - ALL TRANSISTORS ARE BCX20 (U2).
 - ORDER OF ASSEMBLY MUST BE:-
 - FIT ALL SURFACE MOUNT COMPONENTS.
 - FIT H1-H6. ENSURE FILAMENT IS IN THE MIDDLE OF SILVER AREA.
 - FIT ALL SIDE 1 COMPONENTS
 - TEST PCB ON A.T.E.
 - FIT DISPLAY (H14) AS SHOWN. USE JIG 75-80216.
 - FIT SHIELD (ITEM 2) AS SHOWN, ENSURING CLEARANCE TO ALL DISPLAY PINS.
 - FIT H7 - H13. USE JIG 75-80216.

PCB 07-01208 ISSUE 8
 ASSY P/No. 08-03745-001

	SCALE 2:1		COPYRIGHT ©CODAN PTY LTD ACN 007 590 605									
	DRN.	D.R	DATE	DISPLAY BOARD								
MATERIAL	CHKD.	NJA	10-1-89	LCD								
	APPD.	NJA	14-9-89	ASSEMBLY								
FINISH	TOLERANCES UNLESS OTHERWISE STATED		DRAWING/DOC No.									
	2 PLACES DEC		A2 08-03745									
	1 PLACE DEC		ISS									
	ANGULAR		1	2	3	4	5	6	7	8	9	SHT 1 OF 1



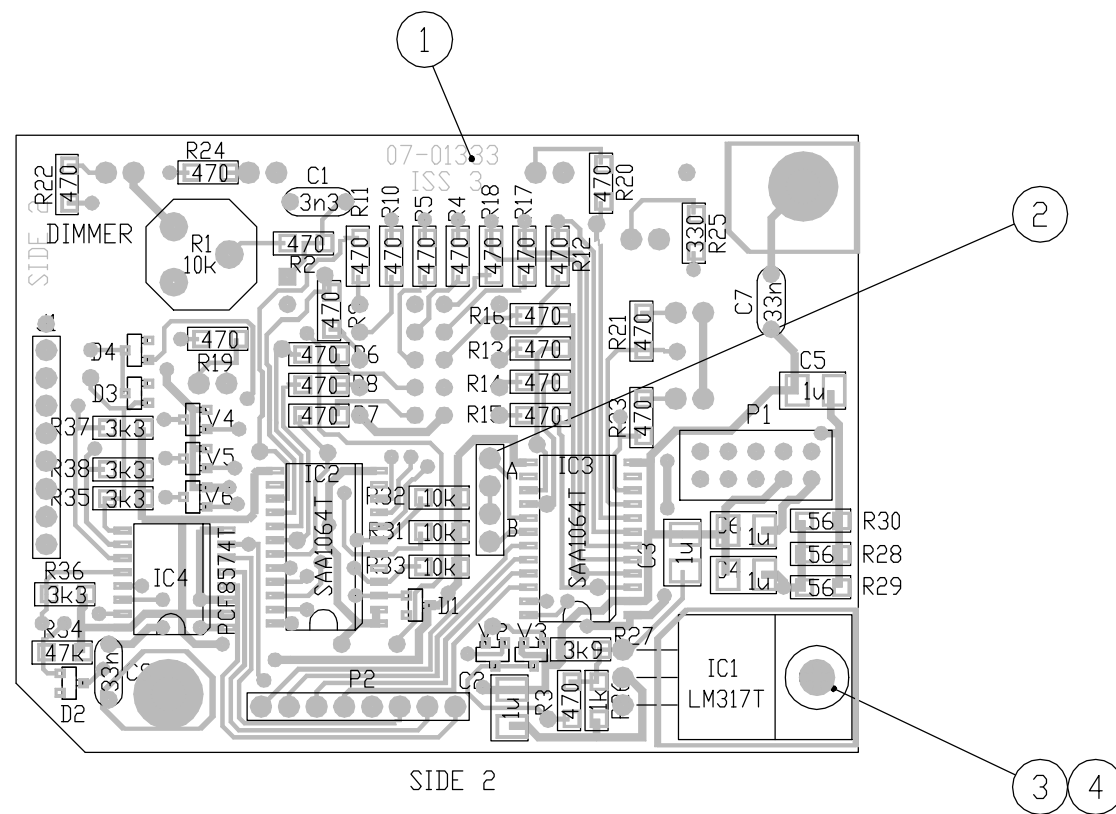
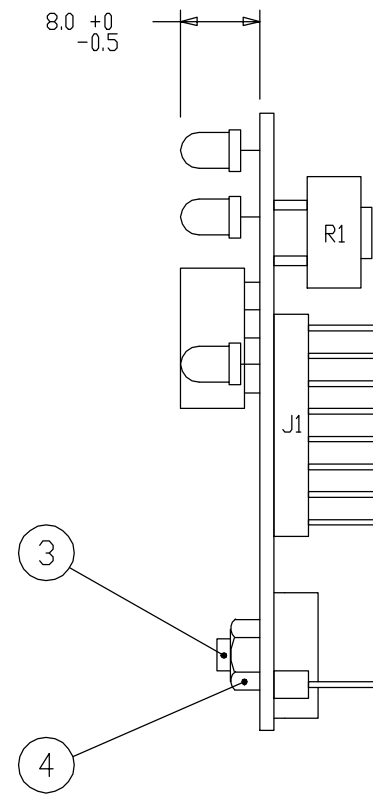
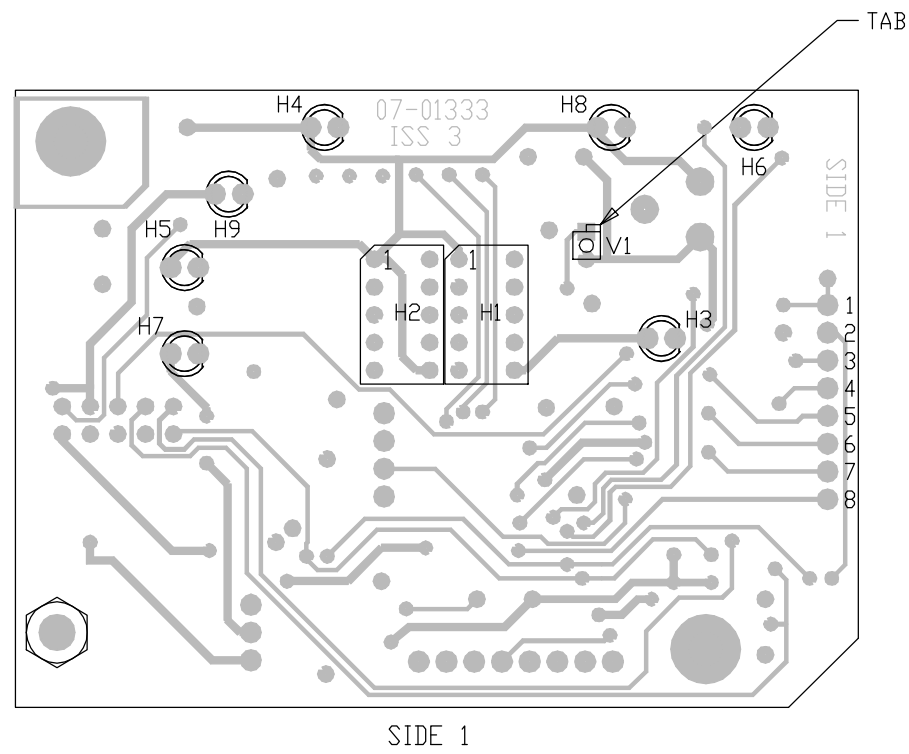
- NOTES
1. ALL DIODES ARE BAS16 (A6).
 2. ALL TRANSISTORS ARE BCX20 (U2).
 3. ORDER OF ASSEMBLY MUST BE:-
 - A. FIT ALL SURFACE MOUNT COMPONENTS.
 - B. FIT ALL OTHER COMPONENTS.

PCB 07-01332 ISSUE 3
 ASSY P/No. 08-03944-001

CHANGE REQUEST	
ISSUE B	R34 WAS 4k7
C/R 22128	14-9-89 NJA
ISSUE 2	P3 WAS J1
C/R 22142	27-10-89 NJA
ISSUE 3	H1 & H2
TRANSPOSED.	C/R 22253
20-12-89	NJA
ISSUE 4	P3 CHANGED
C/R 22300	15-3-90
PCB WAS ISS. 1	BOTTOM L/H CNR
WAS 90 deg.	C/R 22200
14-4-90	NJA
ISSUE 5	SMD LAND
PATTERNS	UPDATED.
PCB WAS ISS. 2	C/R 23135
BCL 30/4/93	

	DRN.	D.S	SCALE	COPYRIGHT © CODAN PTY LTD A.C.N. 007 590 605	
	CHKD.	NJA	DATE	DISPLAY BOARD ASSEMBLY	
MATERIAL	APPD.	NJA	4-7-89	DRAWING/DOC No.	
FINISH	TOLERANCES UNLESS OTHERWISE STATED			A2 08-03944	
2 PLACES DEC			ISS		SHT
1 PLACE DEC			1 2 3 4 5		1
ANGULAR					

DO NOT SCALE



- NOTES
1. ALL DIODES ARE BAS16 (A6).
 2. ALL TRANSISTORS ARE BCX20 (U2).
 3. ORDER OF ASSEMBLY MUST BE:-
A. FIT ALL SURFACE MOUNT COMPONENTS.
B. FIT ALL OTHER COMPONENTS.

PCB 07-01333 ISSUE 3
ASSY P/NO. 08-03945-001

- ISSUE B
R34 WAS 4K7
C/R 22128
14-9-89 NJA
- ISSUE 2
H1 & H2
TRANSPOSED
C/R 22253
20-12-89 NJA
- ISSUE 3
BOTTOM LH
CNR WAS 90 deg
R36 MOVED
PCB WAS ISSUE 1
C/R 22201
11-4-90 NJA
- ISSUE 4
SMD RESISTORS &
CAP, FOOTPRINTS
MODIFIED.
C/R 23135
C7 & C8 ADDED,
PCB WAS ISSUE 2
C/R 23377
31-7-92 NJA
- ISSUE 5
R2 WAS 470
C/R 23504
14-12-92 GW

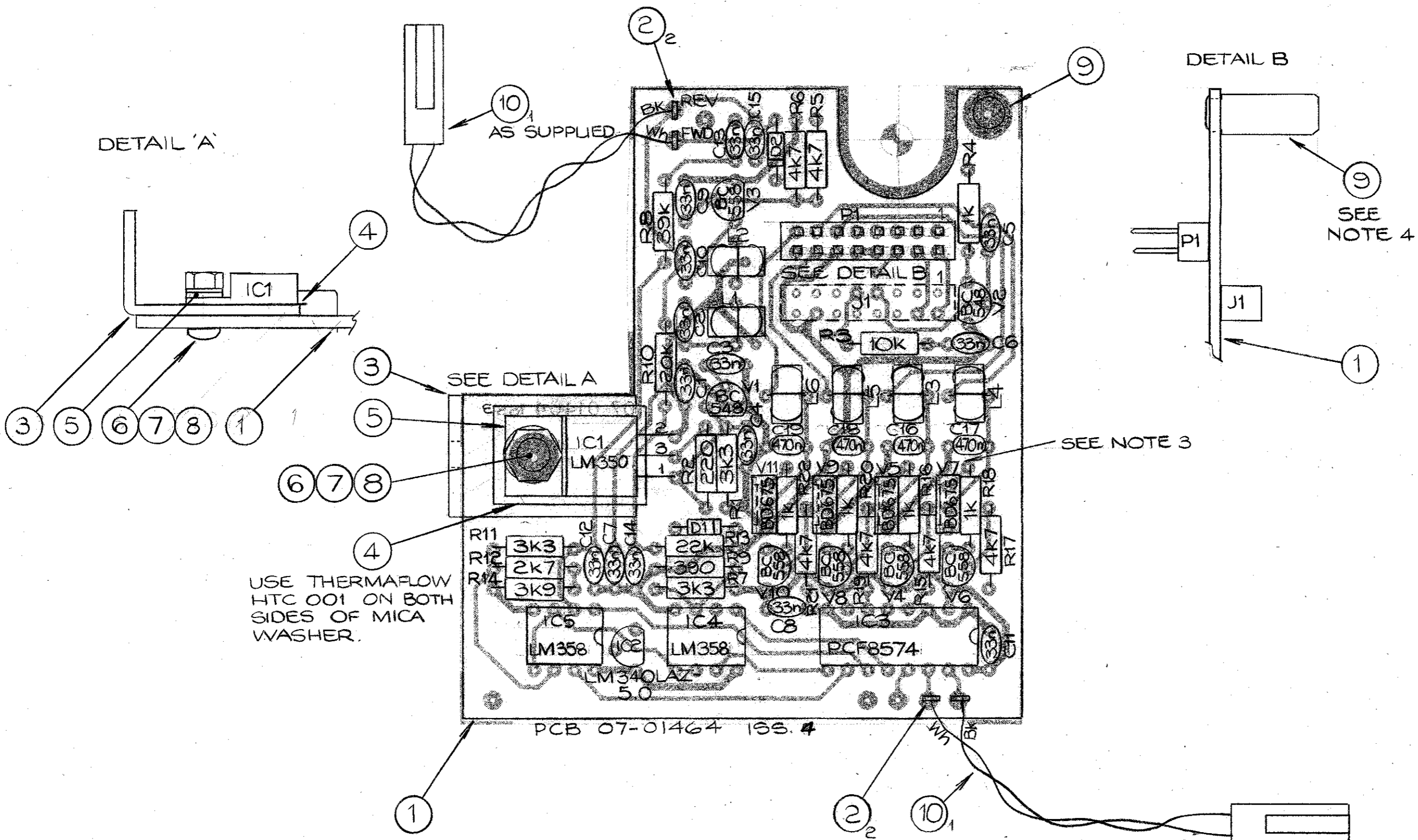
FILE No.
08\03945_5.DWG

	SCALE 1:1		© CODAN PTY LTD, A.C.N. 007 590 605: 1996	
	DRN	OS	TITLE	
	CHKD	NJA	DISPLAY BOARD ASSEMBLY	
MATERIAL		APPD	NJA	DRAWING/DOC NO.
FINISH		TOLERANCES UNLESS OTHERWISE STATED		A2
		2 PLACES DEC. ±0.25 1 PLACE DEC. ±0.5 0 PLACE DEC. ±1 ANGULAR ±2°		ISS 5
				SHT. 1 OF 1

DIMENSIONS IN mm

DO NOT SCALE

ISSUE B
PCB WAS 155.1
C/R. 22879
18-6-91 *MH*



DETAIL B

DETAIL 'A'

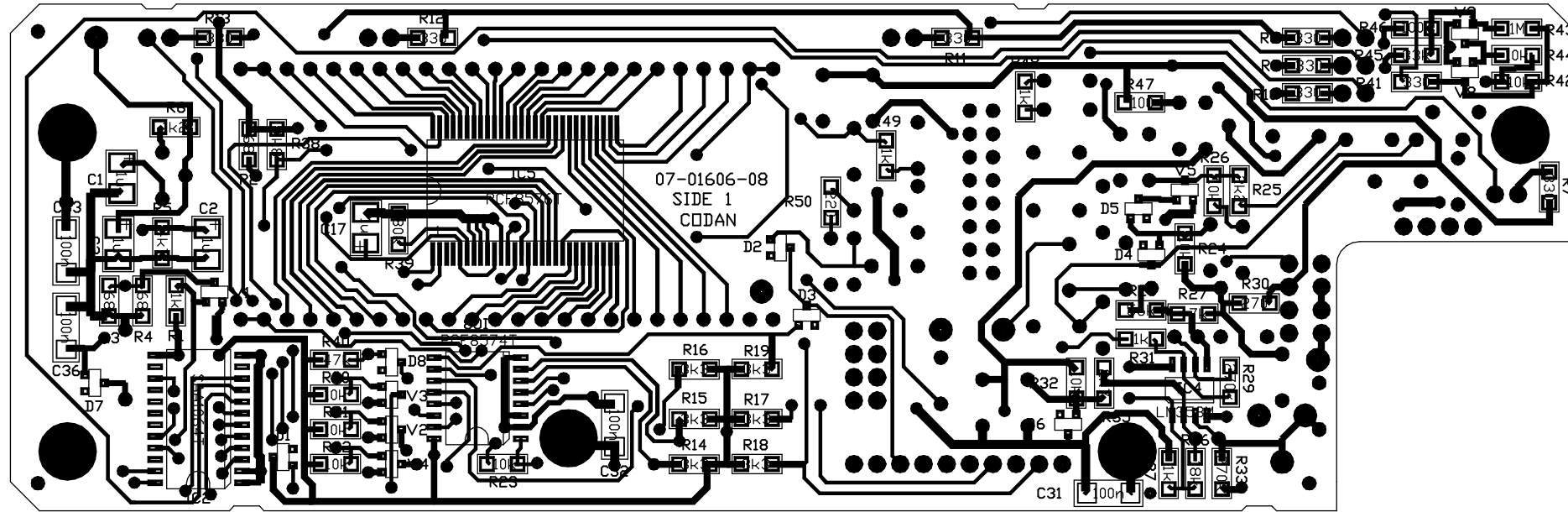
USE THERMAFLOW
HTC 001 ON BOTH
SIDES OF MICA
WASHER.

- NOTES:
- DIODES, D1 & D2, ARE BAW62 OR EQUIVALENT.
 - INDUCTORS, L1-L6, ARE 44-80044.
 - TRANSISTORS, V5, V7, V9, V11 ARE FITTED SO METAL PLATE FACES REGULATOR, IC1
 - ITEM ⑨ SWAGED WITH DIE COMBINATION 7/PA

CUT CABLE TO 70mm
BEFORE FITTING

		SCALE 2:1	TITLE ANTENNA DRIVER		COPYRIGHT © CODAN 19	
		DRN. CG	DATE 13-9-90			
MATERIAL		CHKD. <i>MH</i>	DATE 13-10-90	DRAWING / DOC NO. 08-04285		
FINISH		APPD. <i>BH</i>	DATE 19-10-95	ISS A3		
TOLERANCES UNLESS OTHERWISE STATED			SHT 1			
2 PLACES DEC ±			OF 1			
1 PLACE DEC ±						
ANGULAR ±						

08-04285-001	AS DRAWN
ASSEMBLY NO	



SIDE 1
SURFACE MOUNT COMPONENTS ONLY

- NOTES:-
 1. ALL DIODES ARE BAS16.
 2. ALL TRANSISTORS ARE BCX20.

PCB 07-01606-08
 ASSY P/No. 08-04666-001

CHANGE REQUEST

ISSUE B
 C30-C36 ADDED
 PCB WAS ISS 2
 C/R 23377
 NJA 05-08-92

ISSUE 2
 R33 WAS 390k.
 R36 WAS 10k.
 C/R 24093
 CM 11-01-95

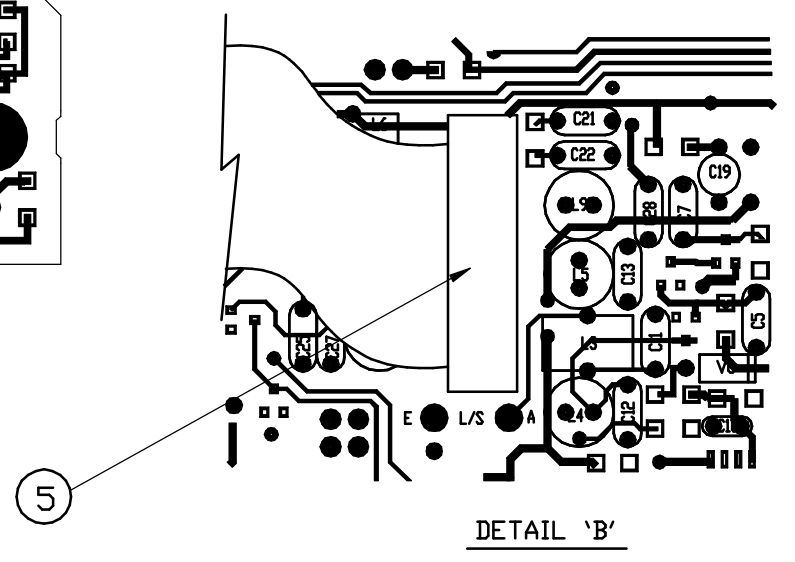
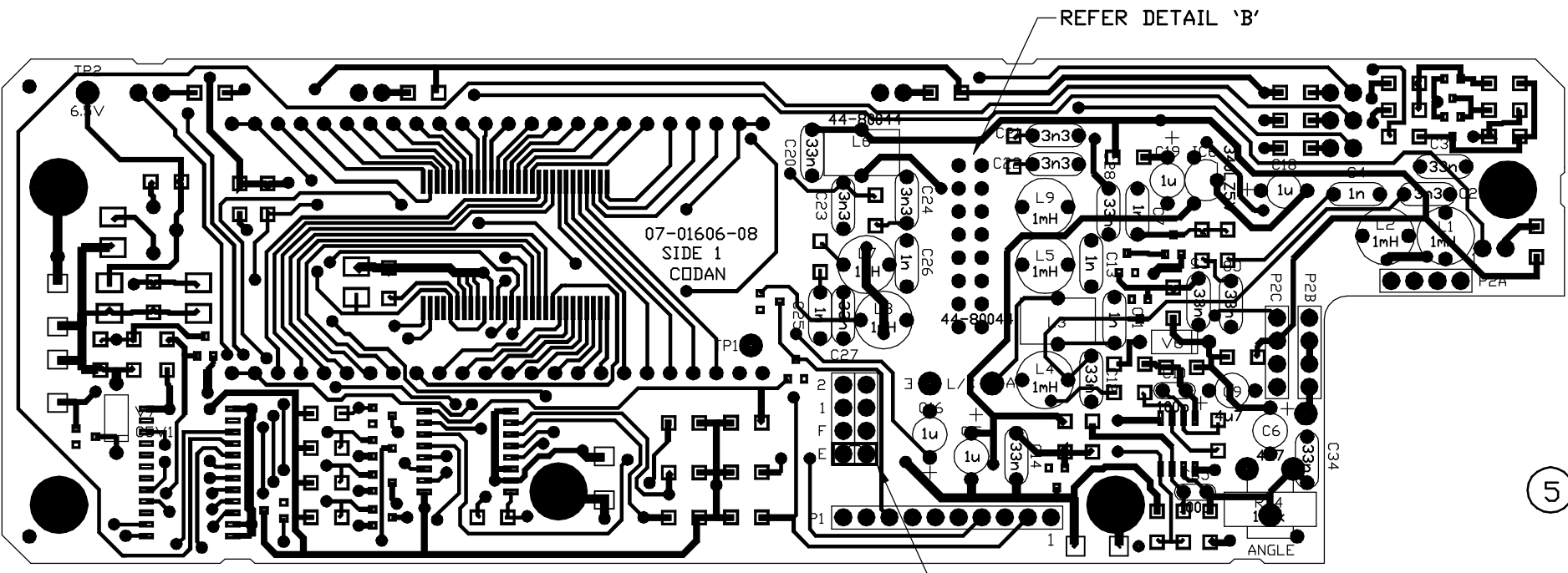
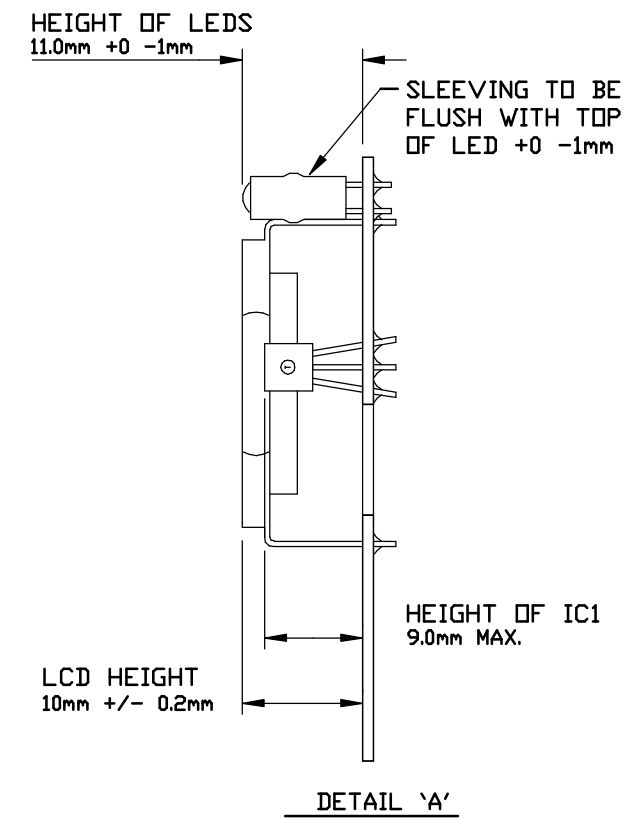
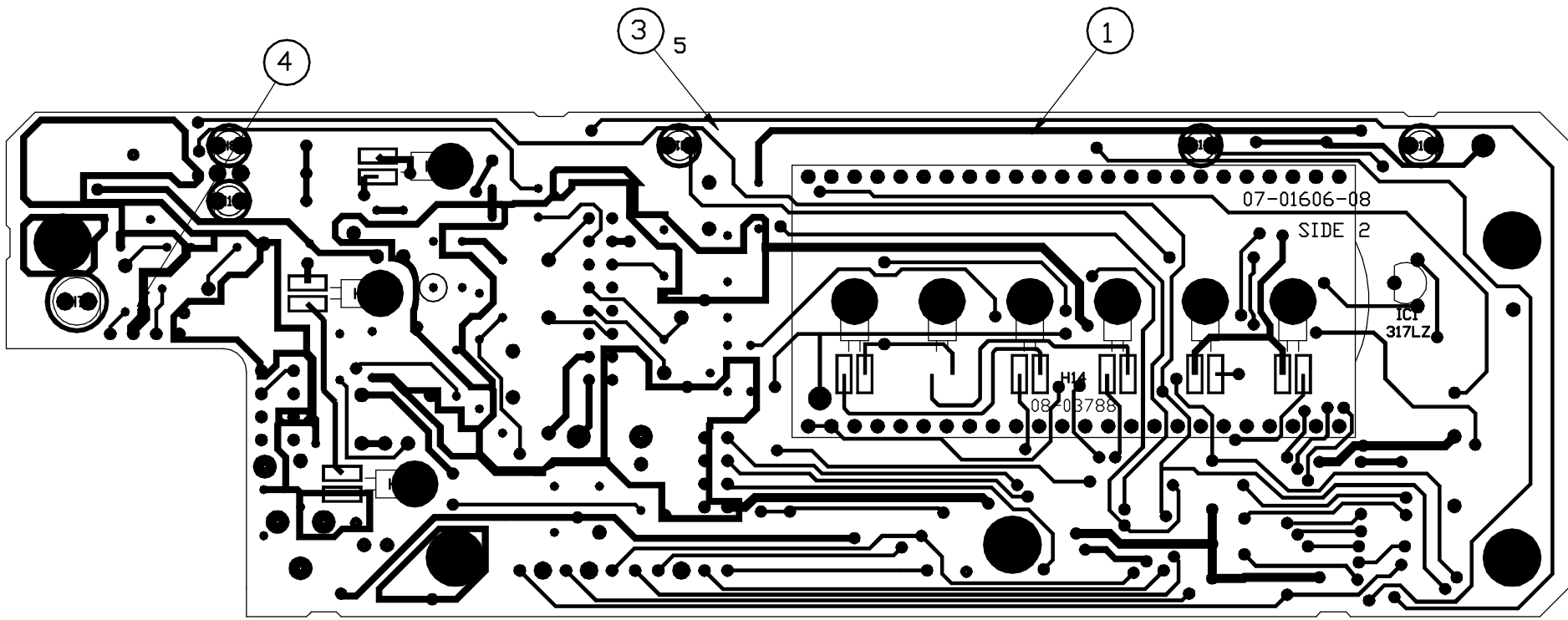
ISSUE 3
 PCB WAS ISS 5.
 C/R 24227
 CM 14-06-95

ISSUE 4
 REFER SHEET 2.
 C/R 24515
 CM 27-3-96

ISSUE 5
 C/R 24904
 REFER SHEET 2.

FILE No.
 08\04666_5.DWG

			SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605 1996 TITLE	
	DRN	CS/MS	DATE 19-2-91	DISPLAY PCB ASSEMBLY	
MATERIAL	CHKD	NJA	02-07-91	DRAWING/DOC NO.	
	APPD	CM	19-10-93	A2 08-04666	
FINISH	TOLERANCES UNLESS OTHERWISE STATED			ISS	
	2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR			3	4 5
				SHT. 1	DF 2



CHANGE REQUEST

ISSUE B
C30-C36 ADDED
PCB WAS ISS 2
C/R 23377
NJA 05-08-92

ISSUE 2
R33 WAS 390k.
R36 WAS 10k.
C/R 24093
CM 11-01-95

ISSUE 3
PCB WAS ISS 5.
C/R 24227
CM 14-06-95

ISSUE 4
ITEM 5 ADDED.
C/R 24515
20-02-96 JFB

ISSUE 5
C/R 24904
L1,L2,L4,L5,L7,L8
L9 TYPE CHANGE
PCB WAS ISS. 7
17-6-97

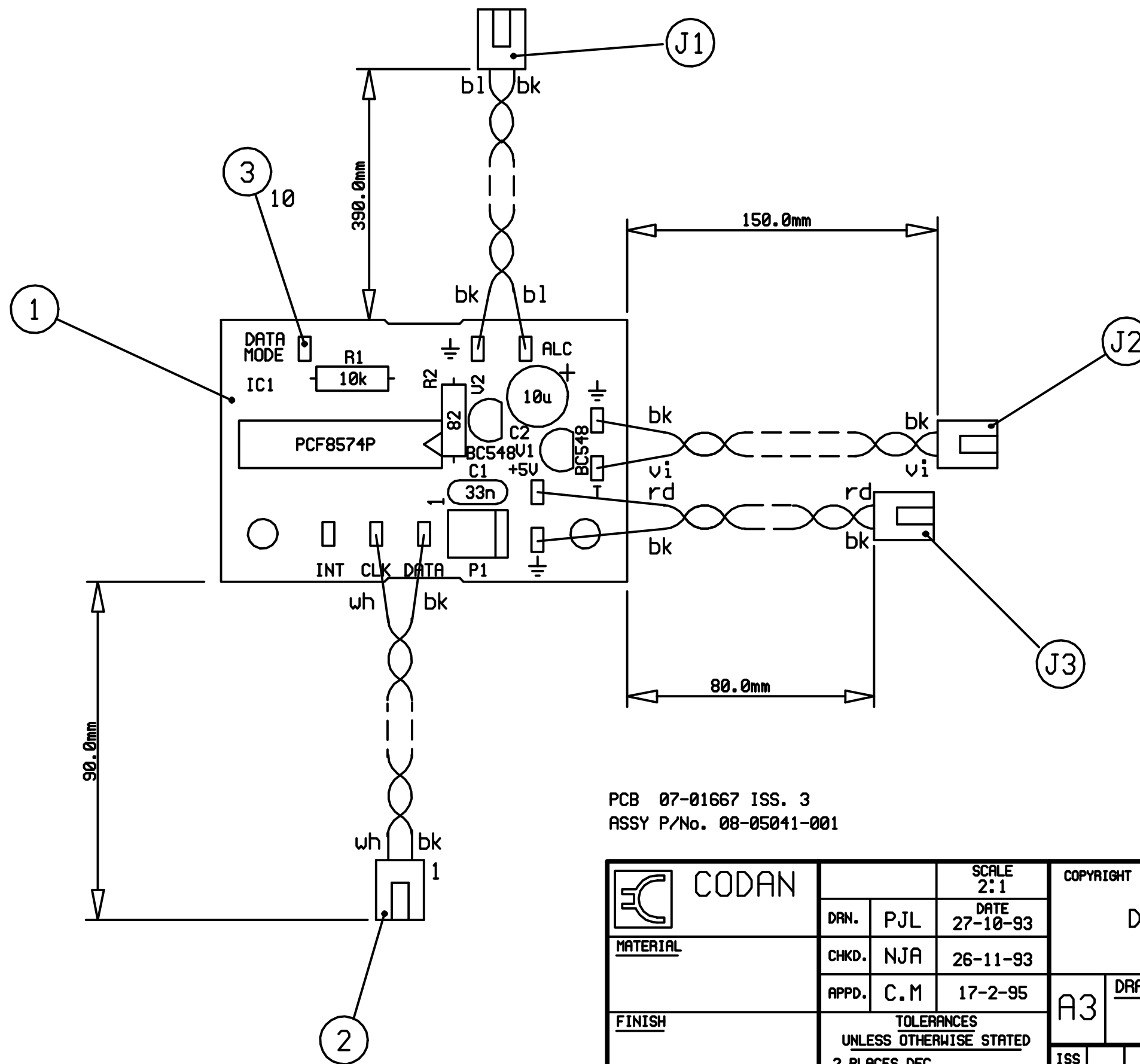
NOTES:
ORDER OF ASSEMBLY MUST BE:-

- FIT ALL SURFACE MOUNT COMPONENTS.
- FIT ALL OTHER COMPONENTS ON SIDE 1 (EXCEPT ITEM 5).
- FIT H1-H6, D15-17. ENSURE FILAMENT IS IN THE MIDDLE OF THE SILVER AREA AND THE LEADS DO NOT OVERHANG EDGE OF PADS.
- INSPECTION
- FIT DISPLAY H14 AS SHOWN.
- FIT ALL LEDS WITH SLEEVE AS SHOWN.
- FIT ITEM 5.
- INSPECT DISPLAY.

PCB 07-01606-08
ASSY P/No. 08-04666-001

FILE NAME
08\04666_5.DWG

	DRN	CS/MS	SCALE	© CODAN PTY LTD, A.C.N. 007 590 605 1996				
	CHKD	NJA	DATE	TITLE				
	APPD	CM	DATE	DISPLAY PCB ASSEMBLY				
FINISH	TOLERANCES UNLESS OTHERWISE STATED			DRAWING/DOC NO.				
	2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR			08-04666				
				ISS	3	4	5	SHT. 2 OF 2



PCB 07-01667 ISS. 3
 ASSY P/No. 08-05041-001

CHANGE REQUEST

ISSUE B
 R2 ADDED.
 C2 WAS 47u.
 C/R 24080:
 EJ 08-12-94

ISSUE 2
 J1, J2, J3 ADDED
 C/R 24319
 4-9-95 NJA

ISSUE 3
 LENGTH INCREASED
 TO 390mm
 C/R 24421
 CM 8-11-95

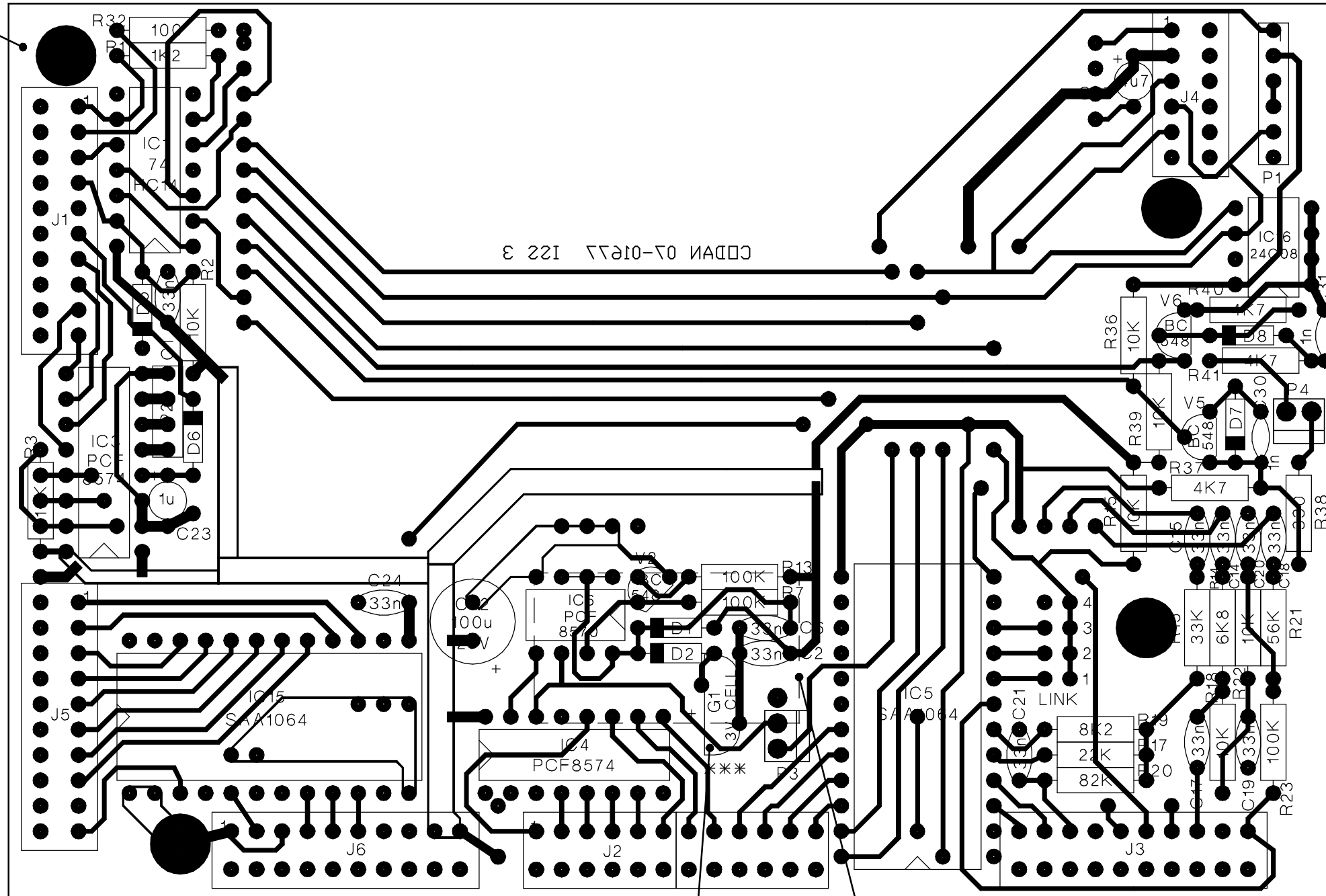
ISSUE 4
 COMPONENT VALUES
 ADDED.
 C/R 24407
 WIRE COLOURS
 TERMINATING AT
 J1 - REVERSED.
 C/R 24458
 CM 29-1-96

DISK FILE
 05041__4

	SCALE 2:1		COPYRIGHT © CODAN PTY LTD A.C.N. 007 590 605		
	DRAWN. P.J.L.	DATE 27-10-93	DATA MODE SWITCH ASSEMBLY		
	CHECKED. N.J.A.	DATE 26-11-93			
MATERIAL		APPD. C.M.	DATE 17-2-95	DRAWING/DOC No. 08-05041	
FINISH		TOLERANCES UNLESS OTHERWISE STATED		A3	
2 PLACES DEC		1 PLACE DEC		ISS	
ANGULAR				SHT 1	

DO NOT SCALE

21



PCB 07-01677 ISSUE 3

23

22

FILE NAME
08\05088_1.DWG

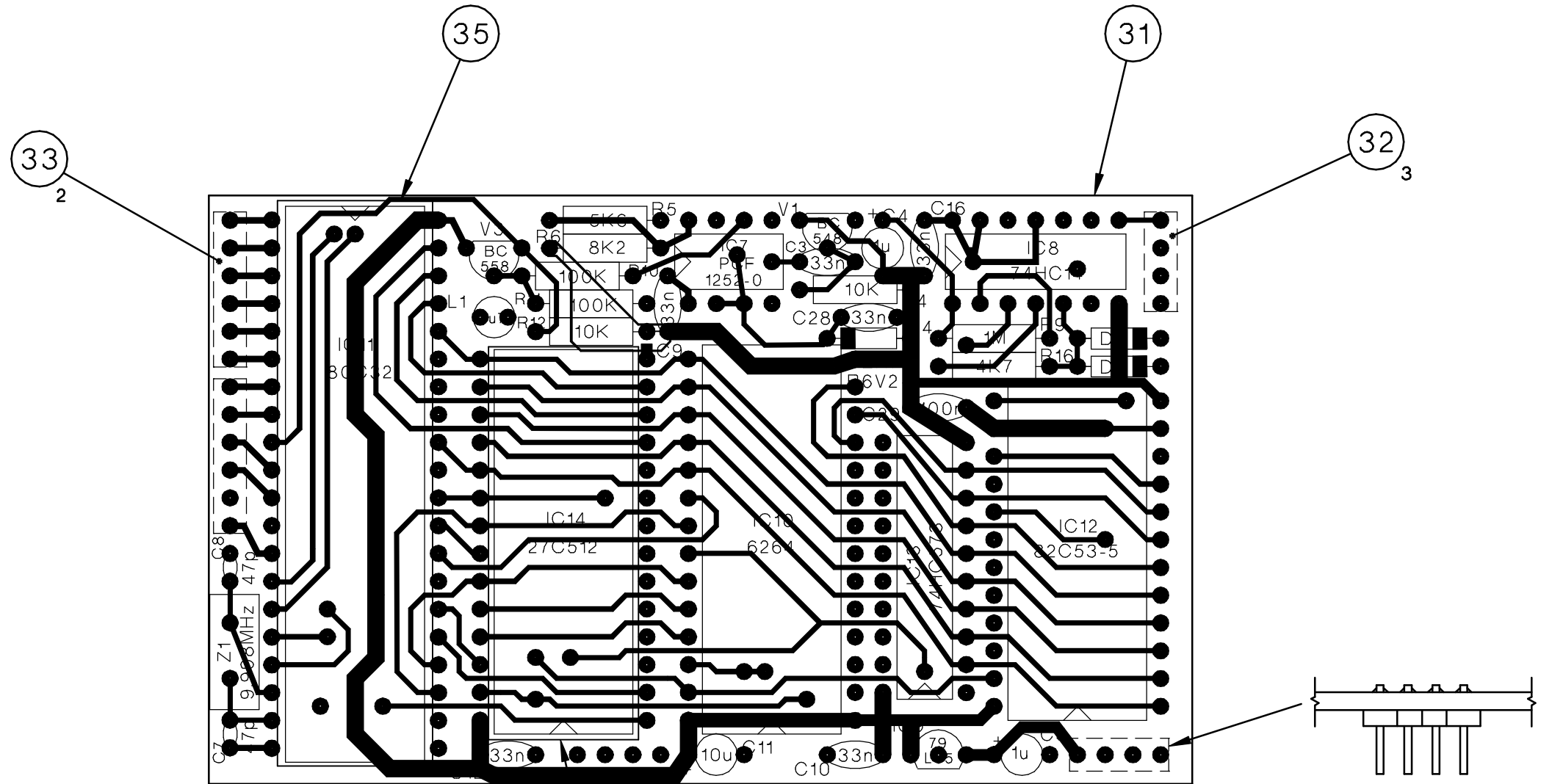
NOTES;

CAUTION

1. ALL DIODES BAW62 OR EQUIVALENT
2. xxx 3 VOLT CELL MUST BE FITTED LAST MANUALLY.
3. FIT ITEM (23) OVER G1.
4. FIT ITEM (22) UNDER PCB AS SHOWN.

	SCALE 2:1		© CODAN PTY LTD, A.C.N. 007 590 605: 1997	
	DRN	ILT	DATE 17-3-94	
MATERIAL	CHKD	NJA 21-3-94		TITLE MICROPROCESSOR INTERFACE
	APPD	CM 1-6-94		
FINISH	TOLERANCES UNLESS OTHERWISE STATED		DRAWING/DOC NO. 08-05088	
	2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR		A3	ISS
	1			SHT. 1 OF 1

DO NOT SCALE



PCB 07-01242 ISS. 6

WAFERS MOUNTED
ON UNDERSIDE OF
PCB & TOP SOLDERED

WARNING
THIS ASSEMBLY CONTAINS
ELECTRO-STATIC SENSITIVE DEVICES

FILE NAME
08\05089_1.DWG

			SCALE	© CODAN PTY LTD, A.C.N. 007 590 605: 1997 TITLE MICROPROCESSOR ASSY.			
	DRN	ILT	DATE	17-3-94			
MATERIAL	CHKD	NJA	DATE	21-3-94			
	APPD	CM	DATE	1-6-94			
FINISH	TOLERANCES UNLESS OTHERWISE STATED			A3		DRAWING/DOC NO. 08-05089	
	2 PLACES DEC. 1 PLACE DEC. 0 PLACE DEC. ANGULAR			ISS			SHT. 1
				1			OF 1

ISSUE B:
C/R 24875
C13 WAS C16.
NOTE 7 RE C182
(SOT) ADDED.
27.2.97

CAUTION V23 & V24
STATIC SENSITIVE

REFER NOTE 4

DETAIL A


FOLD WIRE BACK
FOR +VE SUPPLY
CONNECTION

XTAL (Z2)

SOLDER 26 GAUGE TCW
TO BODY OF CLIP
FOR GND CONNECTION



KINK

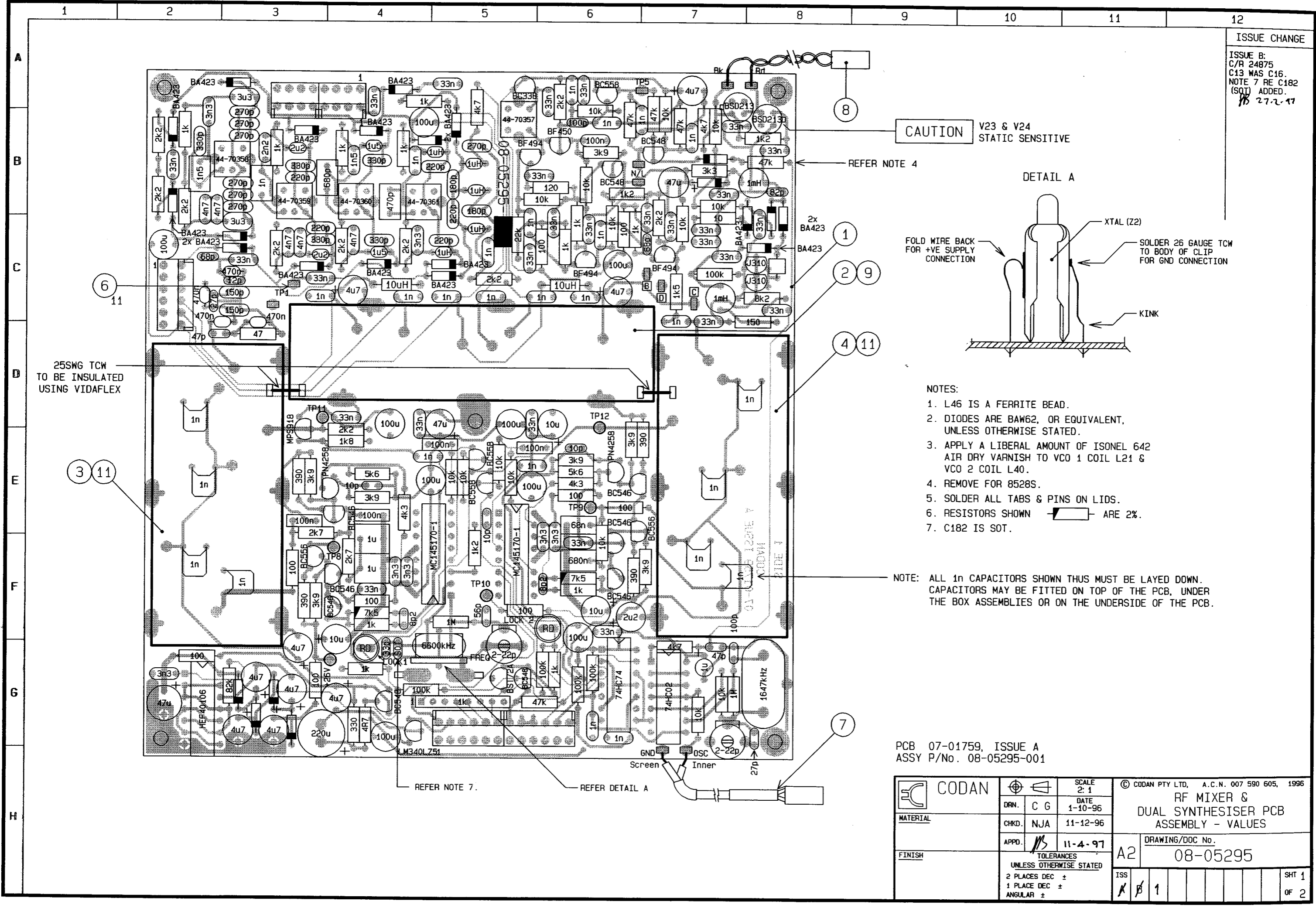
NOTES:

1. L46 IS A FERRITE BEAD.
2. DIODES ARE BAW62, OR EQUIVALENT, UNLESS OTHERWISE STATED.
3. APPLY A LIBERAL AMOUNT OF ISONEL 642 AIR DRY VARNISH TO VCO 1 COIL L21 & VCO 2 COIL L40.
4. REMOVE FOR 8528S.
5. SOLDER ALL TABS & PINS ON LIDS.
6. RESISTORS SHOWN  ARE 2%.
7. C182 IS SOT.

NOTE: ALL 1n CAPACITORS SHOWN THUS MUST BE LAYED DOWN. CAPACITORS MAY BE FITTED ON TOP OF THE PCB, UNDER THE BOX ASSEMBLIES OR ON THE UNDERSIDE OF THE PCB.

PCB 07-01759, ISSUE A
ASSY P/No. 08-05295-001

 CODAN	 SCALE 2:1	© CODAN PTY LTD, A.C.N. 007 590 605, 1996
	DRN. C G DATE 1-10-96	RF MIXER & DUAL SYNTHESISER PCB ASSEMBLY - VALUES
	CHKD. NJA DATE 11-12-96	DRAWING/DOC No. 08-05295
APPD. <i>MS</i> DATE 11-4-97	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±	A2 ISS 1 SHT 1 OF 2



25SWG TCW
TO BE INSULATED
USING VIDAFLEX

REFER NOTE 7.

REFER DETAIL A

7

4 11

2 9

1

8

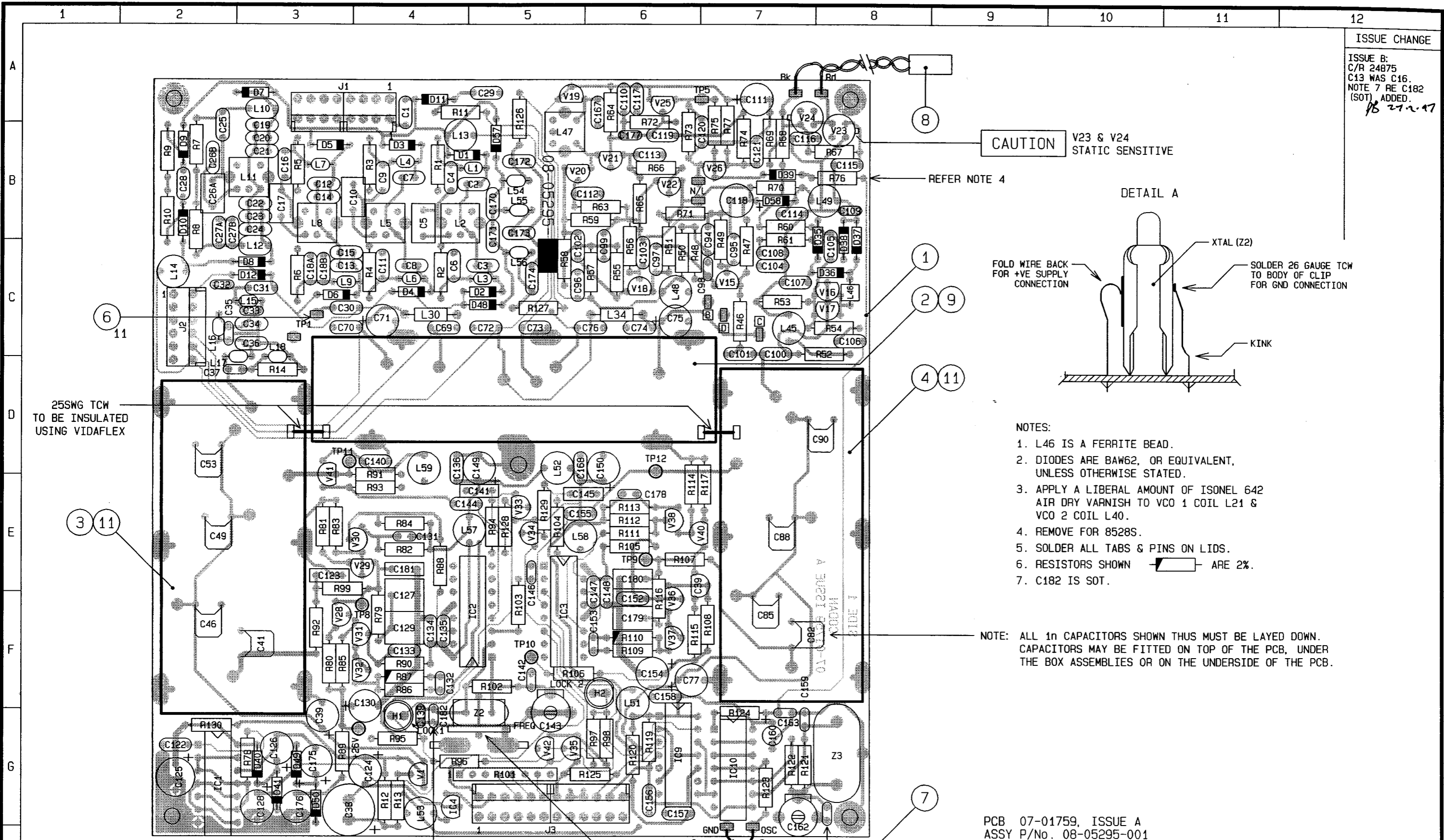
6 11

3 11

A
B
C
D
E
F
G
H

1 2 3 4 5 6 7 8 9 10 11 12

ISSUE B:
C/R 24875
C13 WAS C16.
NOTE 7 RE C182
(SOT) ADDED.
JB 27.2.97



CAUTION V23 & V24
STATIC SENSITIVE

REFER NOTE 4

DETAIL A

FOLD WIRE BACK
FOR +VE SUPPLY
CONNECTION

XTAL (Z2)

SOLDER 26 GAUGE TCW
TO BODY OF CLIP
FOR GND CONNECTION

KINK

NOTES:

1. L46 IS A FERRITE BEAD.
2. DIODES ARE BAW62, OR EQUIVALENT, UNLESS OTHERWISE STATED.
3. APPLY A LIBERAL AMOUNT OF ISONEL 642 AIR DRY VARNISH TO VCO 1 COIL L21 & VCO 2 COIL L40.
4. REMOVE FOR 8528S.
5. SOLDER ALL TABS & PINS ON LIDS.
6. RESISTORS SHOWN ARE 2%.
7. C182 IS SOT.

NOTE: ALL 1n CAPACITORS SHOWN THUS MUST BE LAYED DOWN. CAPACITORS MAY BE FITTED ON TOP OF THE PCB, UNDER THE BOX ASSEMBLIES OR ON THE UNDERSIDE OF THE PCB.

PCB 07-01759, ISSUE A
ASSY P/No. 08-05295-001

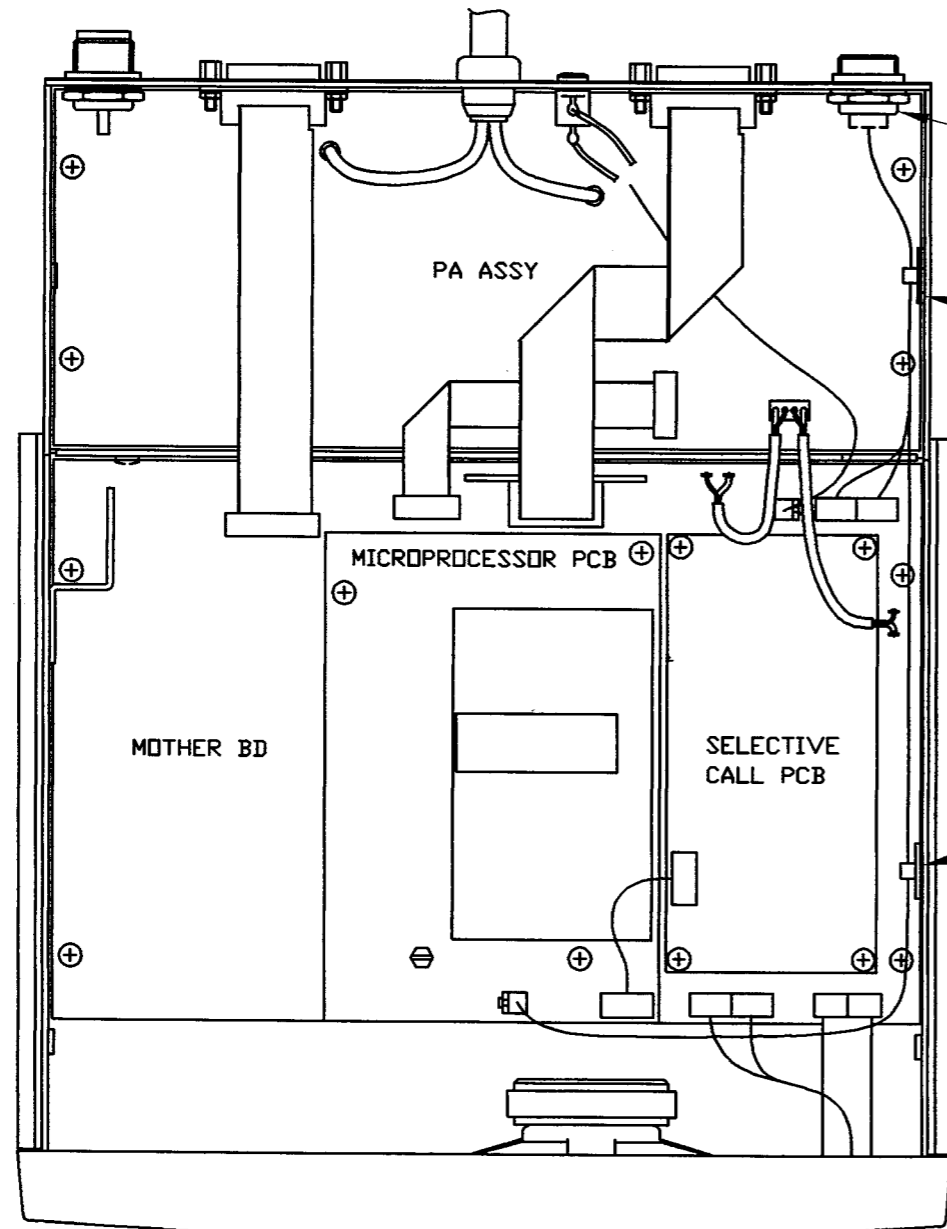
REFER NOTE 7.

REFER DETAIL A

	ORN.	C G	SCALE	2:1	© CODAN PTY LTD, A.C.N. 007 590 605, 1996 RF MIXER & DUAL SYNTHESISER PCB ASSEMBLY - REFERENCES DRAWING/DOC No. 08-05295
	CHKD.	NJA	DATE	1-10-96	
	APPD.	JB	DATE	11-4-97	
MATERIAL	FINISH			TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±	A2 ISS 1 SHIT 2 OF 2

DO NOT SCALE

IF COMPONENTS ARE NOT ALREADY FITTED,
REMOVE RF MIXER & DUAL SYNTHESISER,
INSERT COMPONENTS AS SHOWN & SOLDER,
REPLACE PCB.
REF HANDBOOK CIRCUIT 04-02086 OR
04-02453.



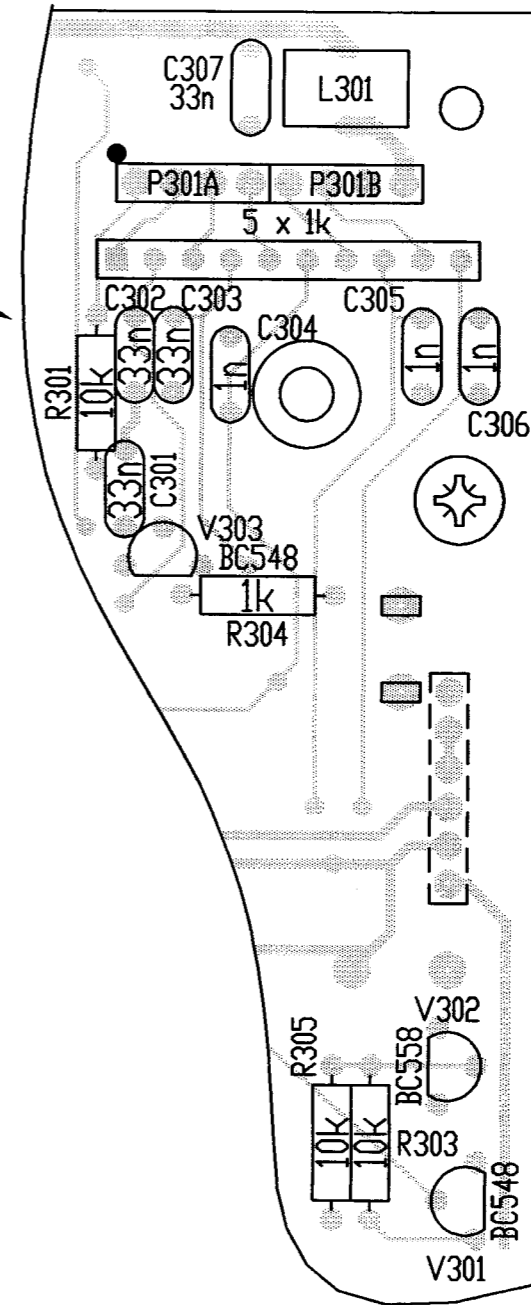
42

FIT CABLE
8 WAY: 08-03232 OR
10 WAY: 08-05091-001
AS REQ'D.

41

41

ONLY FOR
10 WAY CABLE



ISSUE B
C/R 21009

ISSUE C
C/R 21023

ISSUE D
C/R 21063

ISSUE E
21140

ISSUE 2
ITEM No's CHANGED.
C/R 21257
9-4-87 NJA

ISSUE 3
R305 ADDED.
C/R 21333
24-7-87 NJA

ISSUE 4
04 No ADDED.
C/R 21906
14-9-89 NJA

ISSUE 5
ORIENTATION OF
STAKES CHANGED.
C/R 24258
20-7-95 NJA

ISSUE 6
NOTE CHANGED.
C/R 24337
17-8-95 NJA

ISSUE 7
NOTE ADDED TO
ITEM 42.
C/R 24449
SLH 11-3-96

FILE No.
10271_7

	SCALE NTS		© CODAN PTY LTD, A.C.N. 007 590 605 1995	
	DRN	BLW	DATE 5-6-86	TITLE FITTING INSTRUCTIONS OPTION PS
MATERIAL	CHKD	NJA	6-6-86	DRAWING/DOC NO. 15-10271-001
	APPD	NJA	30-10-86	
FINISH	TOLERANCES UNLESS OTHERWISE STATED			A3
	2 PLACES DEC.	±0.25	ISS	
1 PLACE DEC.	±0.5	7		
0 PLACE DEC.	±1			
ANGULAR	±2			

DO NOT SCALE

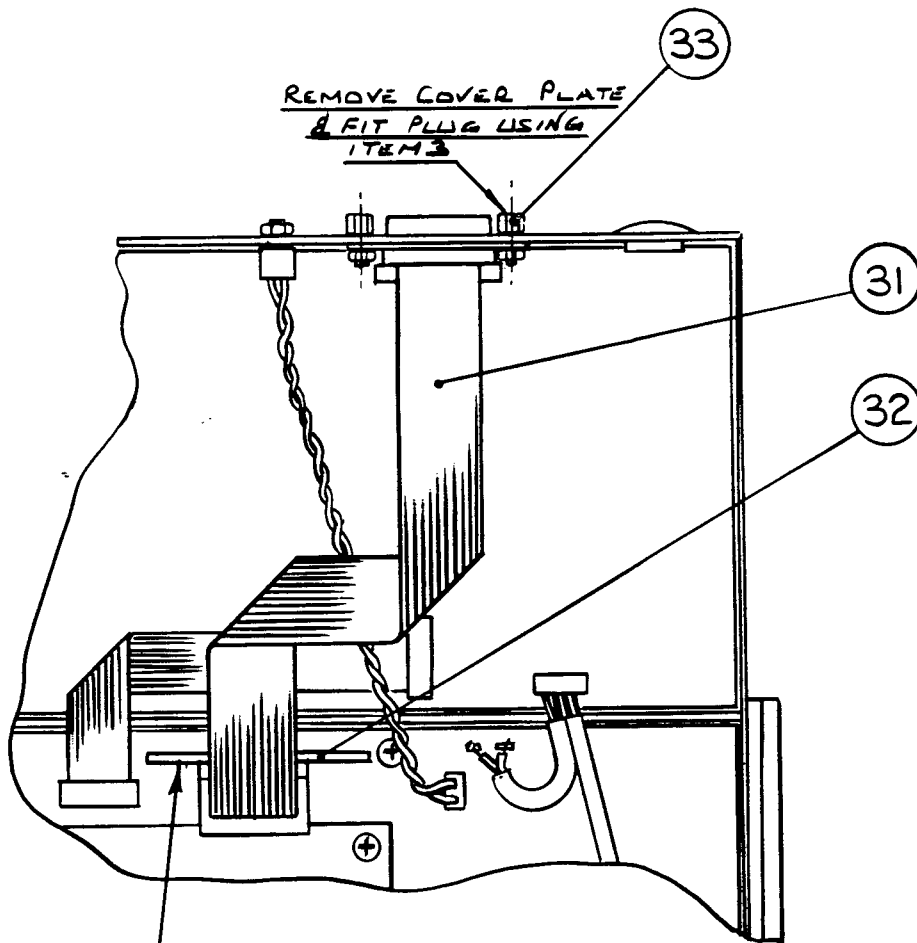
B. 21140

ISSUE 2




ITEM No's CHANGED

C/R 21257

9-4-87 *MM*

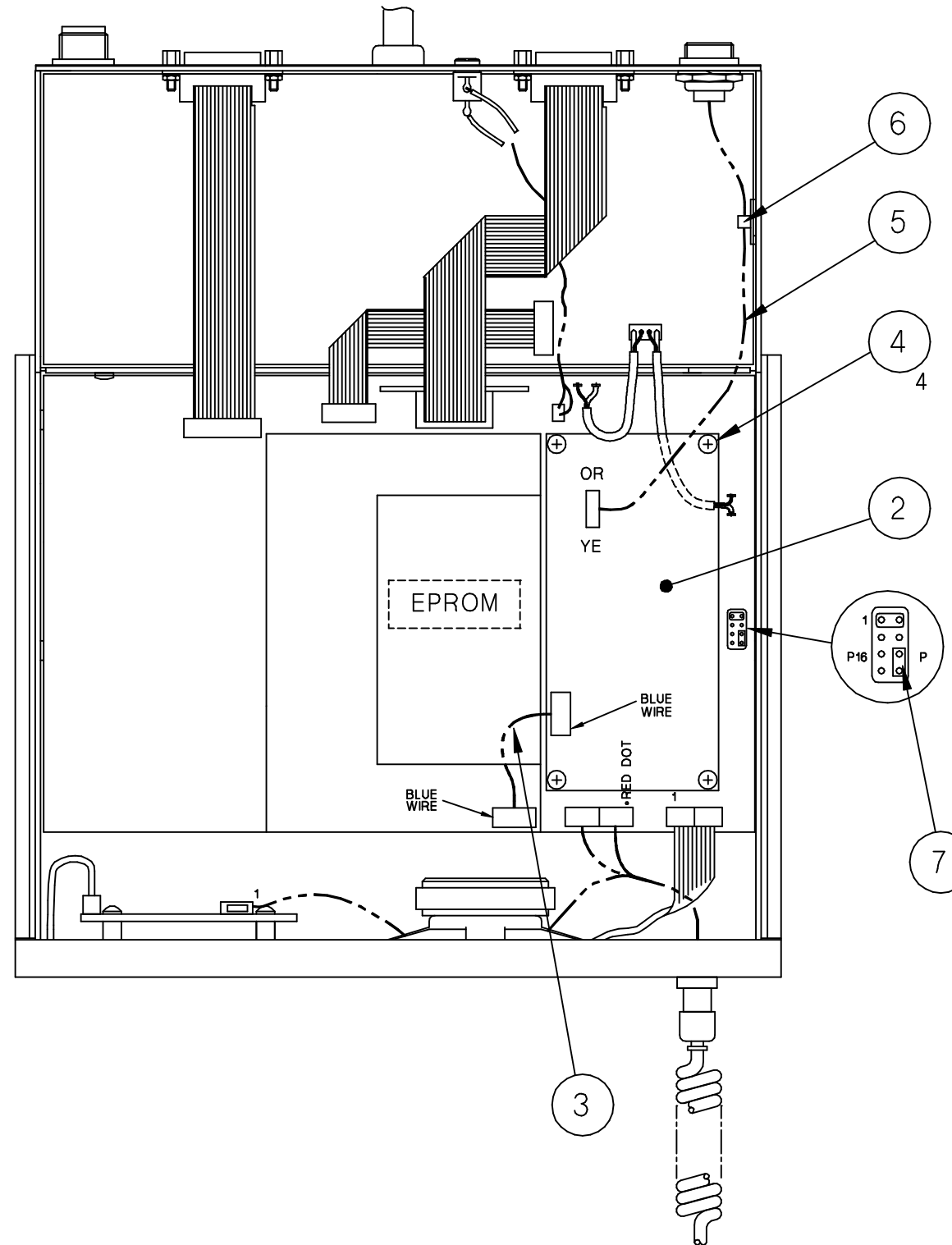


LOCATE & SOLDER PCB ITEM 2
IN POSITION SHOWN.

 CODAN	 		SCALE NTS	COPYRIGHT © CODAN 19
	DRN. <i>BLW</i>	DATE 16-5-86	TITLE <u>OPTION R</u>	
MATERIAL _____	CHKD. <i>MM</i>	DATE 5-6-86	DRAWING/DOC NO.	
FINISH _____	APPD. <i>MM</i>	DATE 30-10-86	A4 15-10272-001	
TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±			ISS 12	SHT / OF /

DO NOT SCALE

ITEM	PART No.	DESCRIPTION
1	15-10274-001	FITTING INSTRUCTIONS
2	08-03300	SELECTIVE CALL SDE SDEM
3	08-03331	LOOM SELECTIVE CALL
4	31-23006-501	SCREW M3x6 PAN POZI
5	08-03332	LOOM EXTERNAL ALARM
6	30-05102-001	CLAMP CABLE
7	60-90410-001	JUMPER



NOTES:

1. REMOVE BOTTOM COVER.
2. WITH THE PCB (ITEM 2) IN THE CORRECT ORIENTATION, ALIGN WITH THE PLUG ON THE MOTHERBOARD. PUSH THE PCB (ITEM 2) DOWN UNTIL IT LOCATES ON THE SPACERS. SECURE USING THE 4 SCREWS (ITEM 4).
3. CONNECT THE SELECTIVE CALL PCB (ITEM 2) TO THE MICRO PROC. PCB USING ITEM 3. ENSURE CORRECT ORIENTATION OF SOCKETS.
4. CHECK ISSUE No. OF EPROM (TO BE AT LEAST 2.2).
5. REMOVE PLUG BUTTON FROM REAR PANEL.
6. REMOVE THE NUT & WASHER FROM PLUG END OF CABLE (ITEM 5). PASS THE SOCKET END OF THIS CABLE THROUGH THE HOLE IN THE BACK PANEL & LOCATE THE PLUG IN THE HOLE, REPLACE THE NUT & WASHER. CONNECT THE CABLE TO THE SELECTIVE CALL PCB (ITEM 2) AS SHOWN. SECURE CABLE TO THE SIDE BRACKET USING ITEM 6.
7. FIT JUMPER (ITEM 7) TO P16 ON MOTHER PCB AT "P" FOR SHORT PREAMBLE OR POSITION "1" FOR LONG PREAMBLE IN SCANNING SYSTEMS.
8. TEST FOR CORRECT OPERATION (SEE HANDBOOK IF REQUIRED).
9. REPLACE BOTTOM COVER.

FILE No.
15\10274__1.DWG

DIMENSIONS IN mm

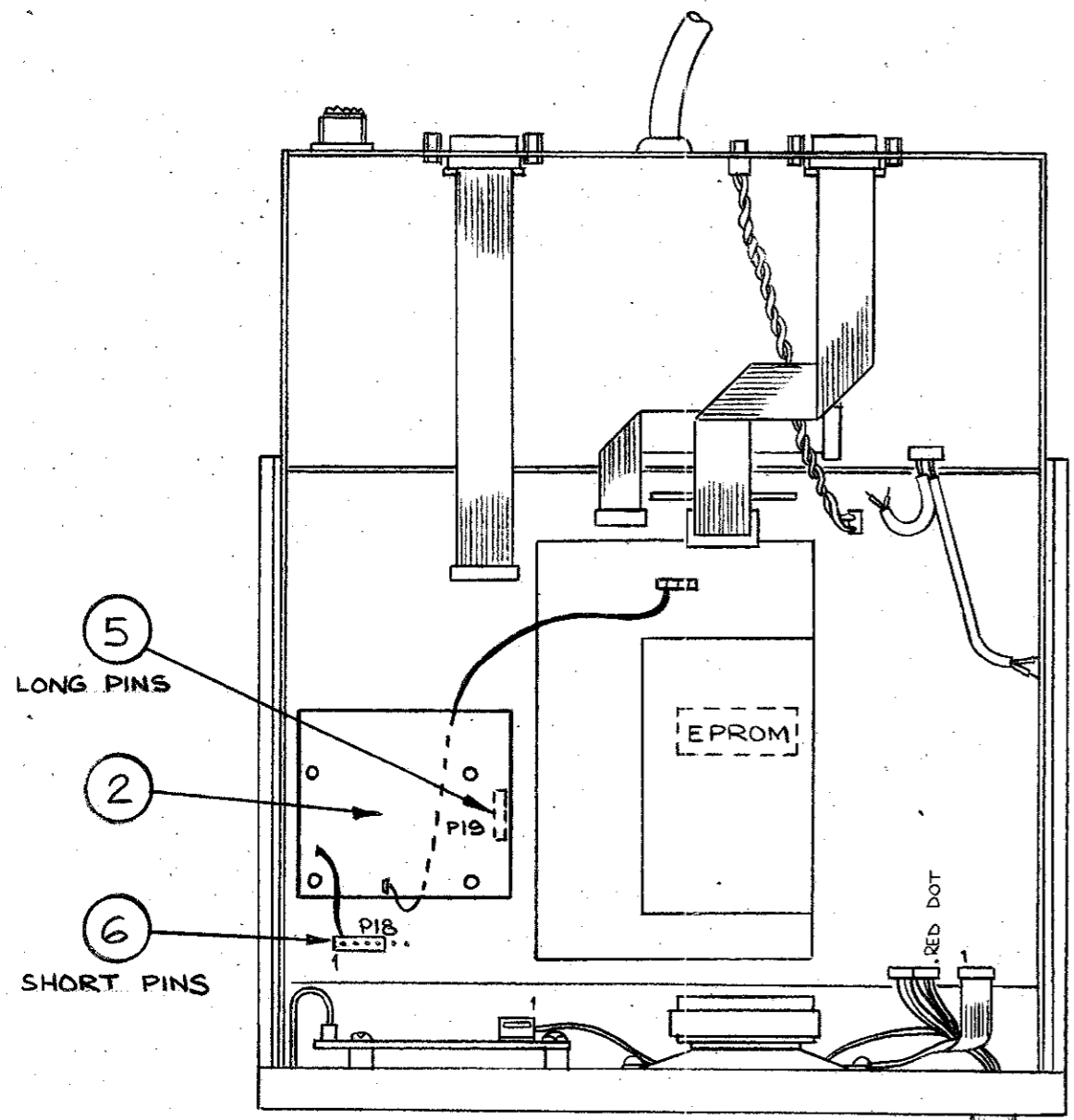
			SCALE NTS	© CODAN PTY LTD, A.C.N. 007 590 605: 2000 TITLE OPTION SDE 8525	
	DRN	APJ	DATE 5-2-87		
MATERIAL	CHKD	NJA	DATE 9-2-87		
	APPD	NJA	DATE 10-2-87		
FINISH	TOLERANCES UNLESS OTHERWISE STATED			A3	DRAWING/DOC NO. 15-10274-001
	2 PLACES DEC.				
1 PLACE DEC.		±0.5			
0 PLACE DEC.		±1			

DO NOT SCALE

2. CIR. 21367
22-3-88 *g/b*

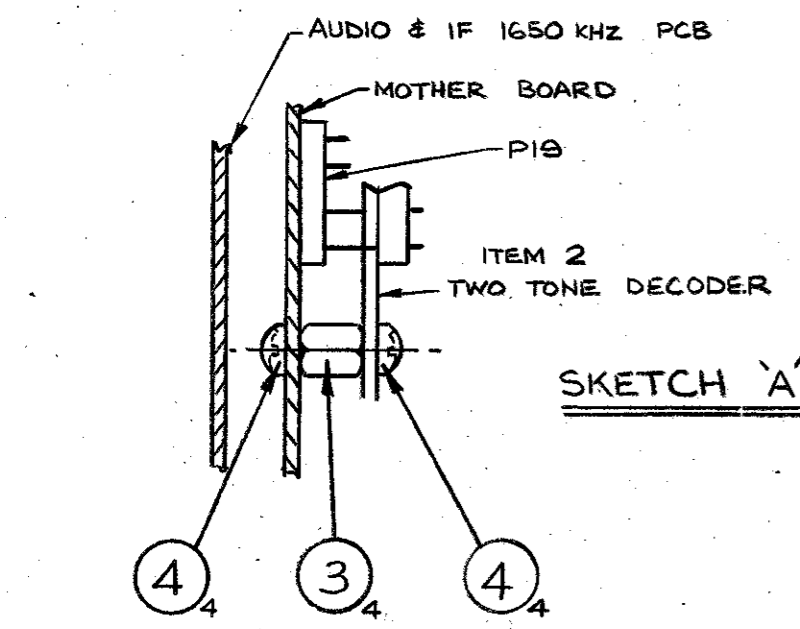
ISSUE 3
TWO UNUSED HOLES ADDED TO P18.
CIR 23793
bu 1-12-93

ITEM	PART N°	DESCRIPTION
1	15-10276-001	FITTING INSTRUCTIONS
2	08-03273	TWO TONE DECODER
3	05-03312-090	SPACER
4	31-23006-501	SCREW M3 x 6
PI9	60-00041-102	PLUG 4 WAY
PI8	60-00041-100	PLUG 4 WAY



NOTES:

1. REMOVE TOP & BOTTOM COVER.
2. DISCONNECT & REMOVE AUDIO & IF PCB (08-03025)
3. SOLDER P18 & P19 IN POSITION SHOWN.
4. ASSEMBLE 4 SPACERS AS SHOWN IN SKETCH 'A'
5. WITH THE PCB (ITEM 2) IN THE CORRECT ORIENTATION ALIGN WITH THE P19 ON THE MOTHER BOARD. PUSH THE PCB (ITEM 2) DOWN UNTIL IT LOCATES ON THE SPACERS. SECURE USING THE 4 SCREWS (ITEM 4)
6. CONNECT THE TWO SOCKETS AS SHOWN ONE TO THE MOTHER BOARD, THE OTHER TO THE MICRO PROC. BOARD ENSURE CORRECT ORIENTATION OF SOCKETS.
7. REPLACE & RECONNECT THE AUDIO & IF PCB.
8. TO ENABLE TONE CALLING THE EPROM MUST BE PROGRAMMED AS REQUIRED.
9. TEST FOR CORRECT OPERATION (SEE HANDBOOK IF REQUIRED)
10. REPLACE TOP & BOTTOM COVERS.



SKETCH 'A'

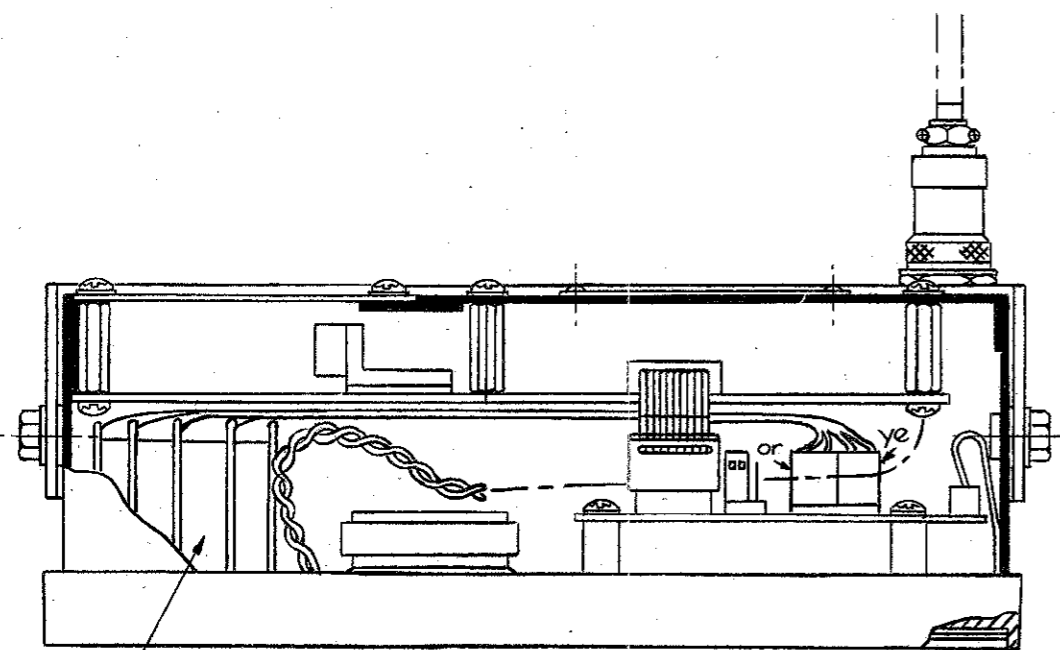
	SCALE		TITLE		COPYRIGHT © CODAN 1987	
	DRN. APJ	DATE 5-2-87	OPTION TD			
MATERIAL	CHKD. <i>MM</i>	DATE 9-2-87	DRAWING		DOC NO.	
FINISH	APPD. <i>MM</i>	DATE 10-2-87	A3		15-10276-001	
TOLERANCES UNLESS OTHERWISE STATED			ISS	SHT		OF
2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±			X 2 3			

283

400

DO NOT SCALE

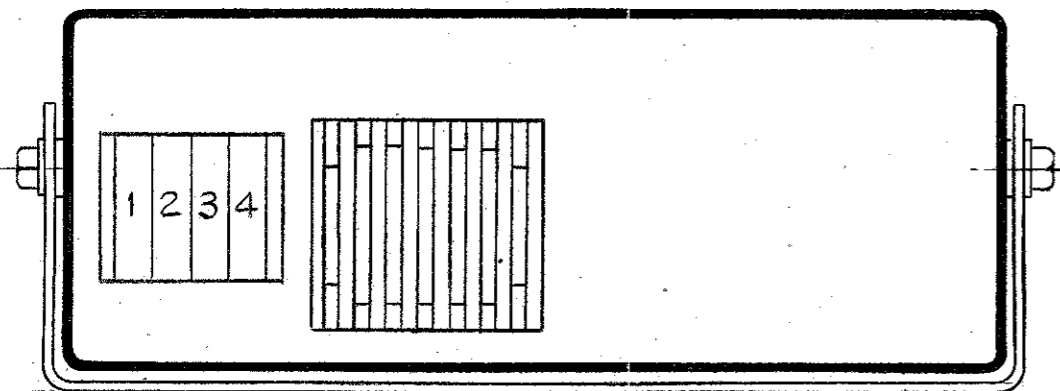
ITEM	PART No	DESCRIPTION
1	15-10282-001	FITTING INSTRUCTIONS
2	08-03301-004	SWITCH, MESH SELECTIVE CALL



2

NOTES:

1. REMOVE FRONT PANEL BY UNSCREWING THE FOUR COUNTERSUNK SCREWS IN THE SIDES.
2. DISCONNECT ALL WIRING BETWEEN FRONT PANEL & MIC AMP & INTERFACE PCB.
3. USING FLAT NOSE PLIERS BREAK OUT THE FOUR SUPPORTING BARS IN THE DIGI SWITCH HOLE AREA.
4. USING A SHARP TOOL CUT OUT THE SWITCH LAYER & ESCUTCHEON 'IMPORTANT' THIS MUST BE DONE FROM THE INSIDE.
5. FROM THE FRONT FILE USING FORWARD STROKES ONLY, CLEAN THE SWITCH LAYER ESCUTCHEON & CASTING TO THE CUTOUT SIZE IN THE CASTING. 'IMPORTANT' ENSURE THIS DOES NOT EXCEED THE CAST CUTOUT SIZE.
6. PASS THE CABLE OF THE DIGI SWITCH ASSEMBLY THROUGH THE CUTOUT AND CLIP THE SIDE PLATE INTO POSITION ENSURING THE DIGI SWITCHES CAN BE READ THE CORRECT WAY ROUND. PLUG THE CABLE FROM THE DIGI SWITCHES INTO THE DISPLAY BOARD AS SHOWN. (LOOP EXCESS CABLE)
7. RECONNECT FRONT PANEL WIRING & PLUG. REPLACE FRONT PANEL USING EXISTING SCREWS.




FRONT VIEW

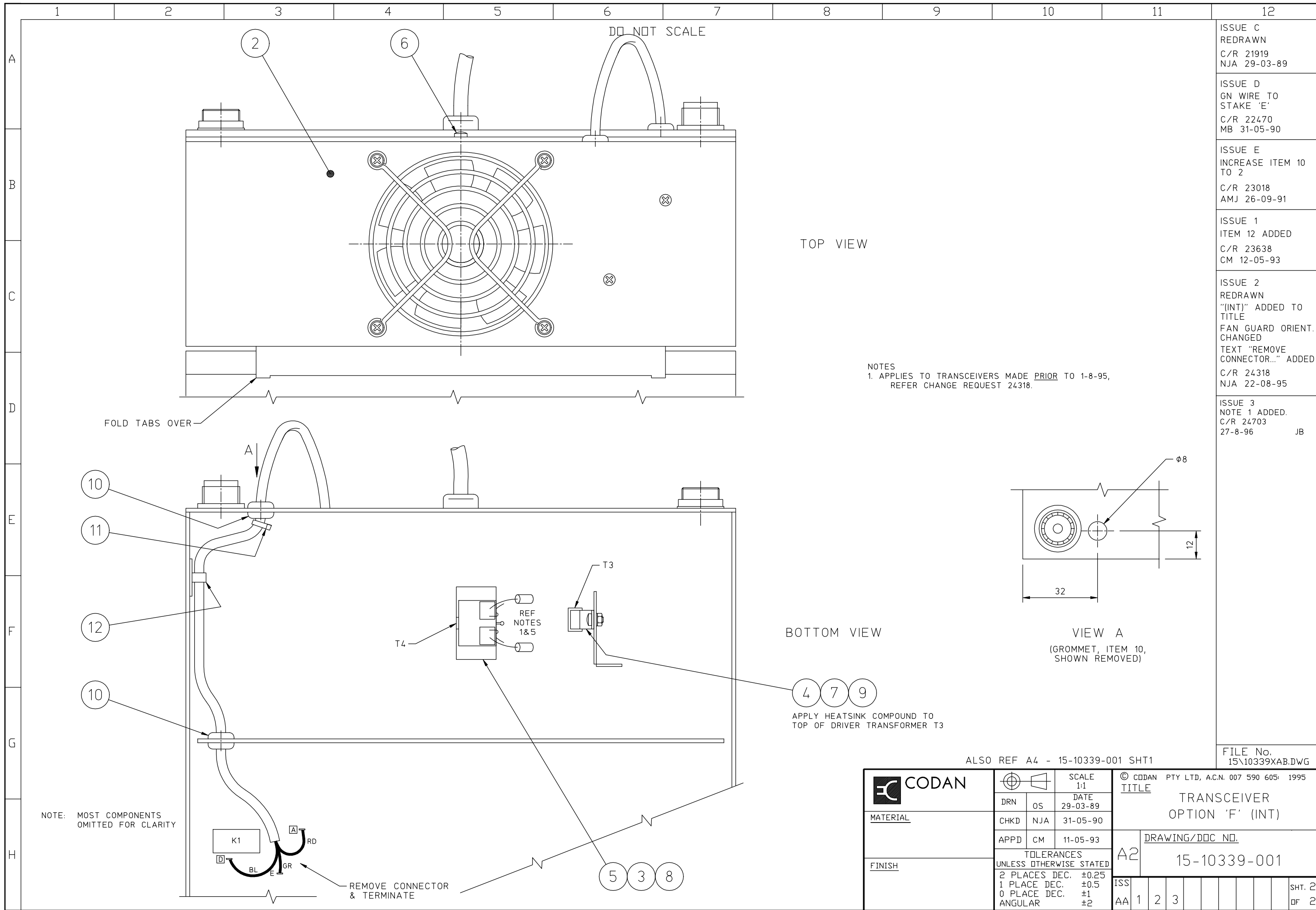
	SCALE		TITLE		COPYRIGHT © CODAN 19	
	DRN.	A.P.J	DATE	OPTION SM 8530		
MATERIAL	CHKD.	MJM	9-2-87	DRAWING DOC NO.		
FINISH	APPD.	MJM	10-2-87	A3 15-10282-001		
TOLERANCES UNLESS OTHERWISE STATED			ISS			SHT
2 PLACES DEC ±			1			OF
1 PLACE DEC ±						
ANGULAR ±						

FITTING INSTRUCTIONS TRANSCEIVER - OPTION F

(PA ASSEMBLY 08-03743 SERIES)

1. Obtain unfinished PA from current production batch and proceed to fit fan option as follows.
2. Secure existing resistor MTG PCB to top of O/P transformer heatsink with silastic and terminate 2 wires from T4 to PCB.
3. Drill out blind holes beneath T4 in PA heatsink $\varnothing 3.0$ (through PCB) and remove all swarf.
4. Apply heatsink compound to fully line inside surface of O/P transformer heatsink (3).
5. Fit O/P transformer (5) T4 to heatsink (3), with MTG base on underside of s/assy.
6. Place O/P transformer s/assy in position and trim wires to suit ensuring centre wire is long enough to just go through PA PCB and doesn't touch PA heatsink.
7. Remove s/assy and apply heatsink compound to base and secure to PA heatsink with screw (8).
8. Terminate wires to PA PCB and terminate 2 wire from T4 to resistor PCB.
9. Remove diode D15 for 100 watt CW operation (60 watts CW when fitted)
10. Apply heatsink compound to top of driver heatsink bracket (4).
11. Fit driver heatsink bracket (4) using screw and nut (7) and (9) ensuring bracket is placed squarely and firmly on top of T3.
12. Drill hole $\varnothing 8.0$ in rear panel as shown and fit grommet.
13. Fit fan/cover assembly (2) to top of PA heatsink using screw (6) and folding tabs over heatsink flange. Fit grommet to screen.
14. Fit cable through rear panel and screen.
15. Fit cable clamp and route cable as shown, fit cable tie, remove connector (leaving long leads) and solder ends as shown.

 CODAN	TRANSCEIVER OPTION F			DRG 15-10339-001	ISS 3	SHT 1 OF 2
	ORIG OS	DATE 11/4/89	CHKD	DATE 13/4/89	APPD CM	DATE 11/5/93



ISSUE C
REDRAWN
C/R 21919
NJA 29-03-89

ISSUE D
GN WIRE TO
STAKE 'E'
C/R 22470
MB 31-05-90

ISSUE E
INCREASE ITEM 10
TO 2
C/R 23018
AMJ 26-09-91

ISSUE 1
ITEM 12 ADDED
C/R 23638
CM 12-05-93

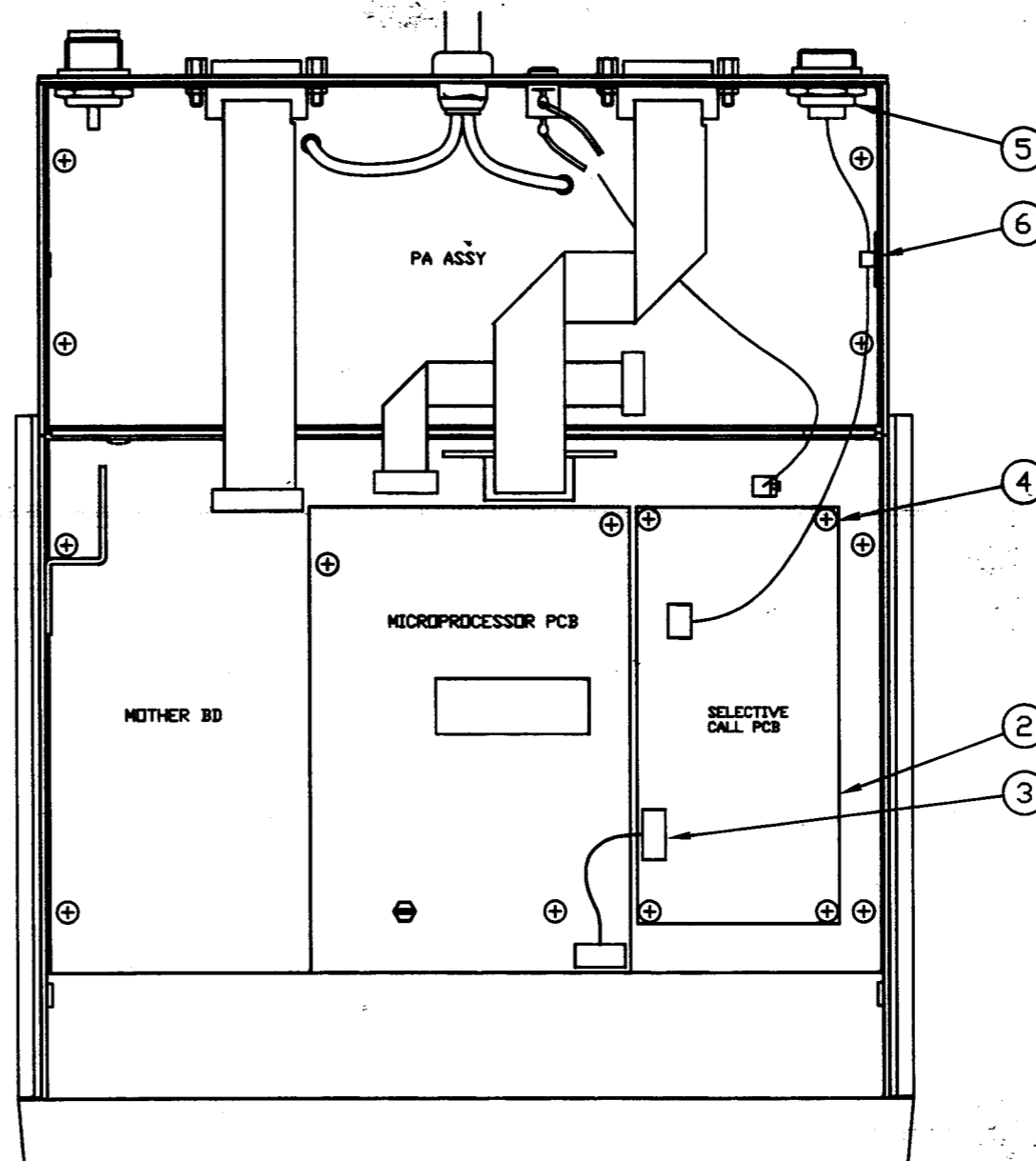
ISSUE 2
REDRAWN
"(INT)" ADDED TO
TITLE
FAN GUARD ORIENT.
CHANGED
TEXT "REMOVE
CONNECTOR..." ADDED
C/R 24318
NJA 22-08-95

ISSUE 3
NOTE 1 ADDED.
C/R 24703
27-8-96 JB

NOTES
1. APPLIES TO TRANSCEIVERS MADE PRIOR TO 1-8-95,
REFER CHANGE REQUEST 24318.

		SCALE 1:1		© CODAN PTY LTD, AC.N. 007 590 605 1995	
		DRN	OS	DATE 29-03-89	
MATERIAL		CHKD	NJA	31-05-90	
		APPD	CM	11-05-93	
FINISH		TOLERANCES UNLESS OTHERWISE STATED			
		2 PLACES DEC.		±0.25	
		1 PLACE DEC.		±0.5	
		0 PLACE DEC.		±1	
		ANGULAR		±2	
		ISS		TITLE	
		AA		TRANSCEIVER OPTION 'F' (INT)	
		1 2 3		DRAWING/DOC NO.	
				15-10339-001	
				SHT. 2	
				OF 2	

REF	PART No	DESCRIPTION	QTY
1	15-10366-001	FITTING INSTRUCTIONS	1
2	08-03300-000	SELECTIVE CALL SD	1
3	08-03331	LOOM, SELECTIVE CALL	1
4	31-23006-501	SCREW M3x6 PAN POZI	4
5	08-03332	LOOM, EXTERNAL ALARM	1
6	30-05102-001	CLAMP, CABLE ADHESIVE BACKED	1






NOTES

1. REMOVE BOTTOM COVER.
2. WITH THE PCB (ITEM 2) IN CORRECT ORIENTATION, ALIGN WITH THE PLUG ON THE MOTHER BOARD, PUSH THE PCB (ITEM 2) DOWN UNTIL IT LOCATES ON THE SPACERS. SECURE USING THE 4 SCREWS (ITEM 4).
3. CONNECT THE SELECTIVE CALL PCB (ITEM 2) TO THE MICRO-PROCESSOR PCB USING CABLE (ITEM 3) ENSURING CORRECT ORIENTATION OF SOCKETS.
4. CHECK ISSUE No OF EPROM (TO BE AT LEAST 1.2 FOR 8528S).
5. REMOVE PLUG BUTTON FROM REAR PANEL.
6. REMOVE THE NUT & WASHER FROM PLUG END OF CABLE (ITEM 5), PASS THE SOCKET END OF THIS CABLE THROUGH THE HOLE IN THE REAR PANEL, LOCATE THE PLUG IN THE HOLE & REPLACE THE NUT & WASHER. CONNECT THE CABLE TO THE SELECTIVE CALL PCB (ITEM 2) AS SHOWN. SECURE CABLE TO THE SIDE BRACKET USING THE CABLE CLAMP (ITEM 6).
7. TEST FOR CORRECT OPERATION (SEE HANDBOOK IF REQUIRED).
8. REPLACE BOTTOM COVER.

P/No 15-10366-001 - AS DETAILED

DISC FILE
10366_1

 CODAN			SCALE 1:1	© CODAN PTY LTD, A.C.N. 007 590 605 1993 TITLE OPTION SD - 8528 FITTING INSTRUCTIONS
	DRN	OS	DATE 4-8-89	
	CHKD	NJA	13-8-89	
MATERIAL	APPD	NJA	14-9-89	DRAWING/DOC NO. A3 15-10366-001
FINISH	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC. ±0.25 1 PLACE DEC. ±0.5 ANGULAR ±			
ISS				SHT. 1
1				OF 1

DO NOT SCALE

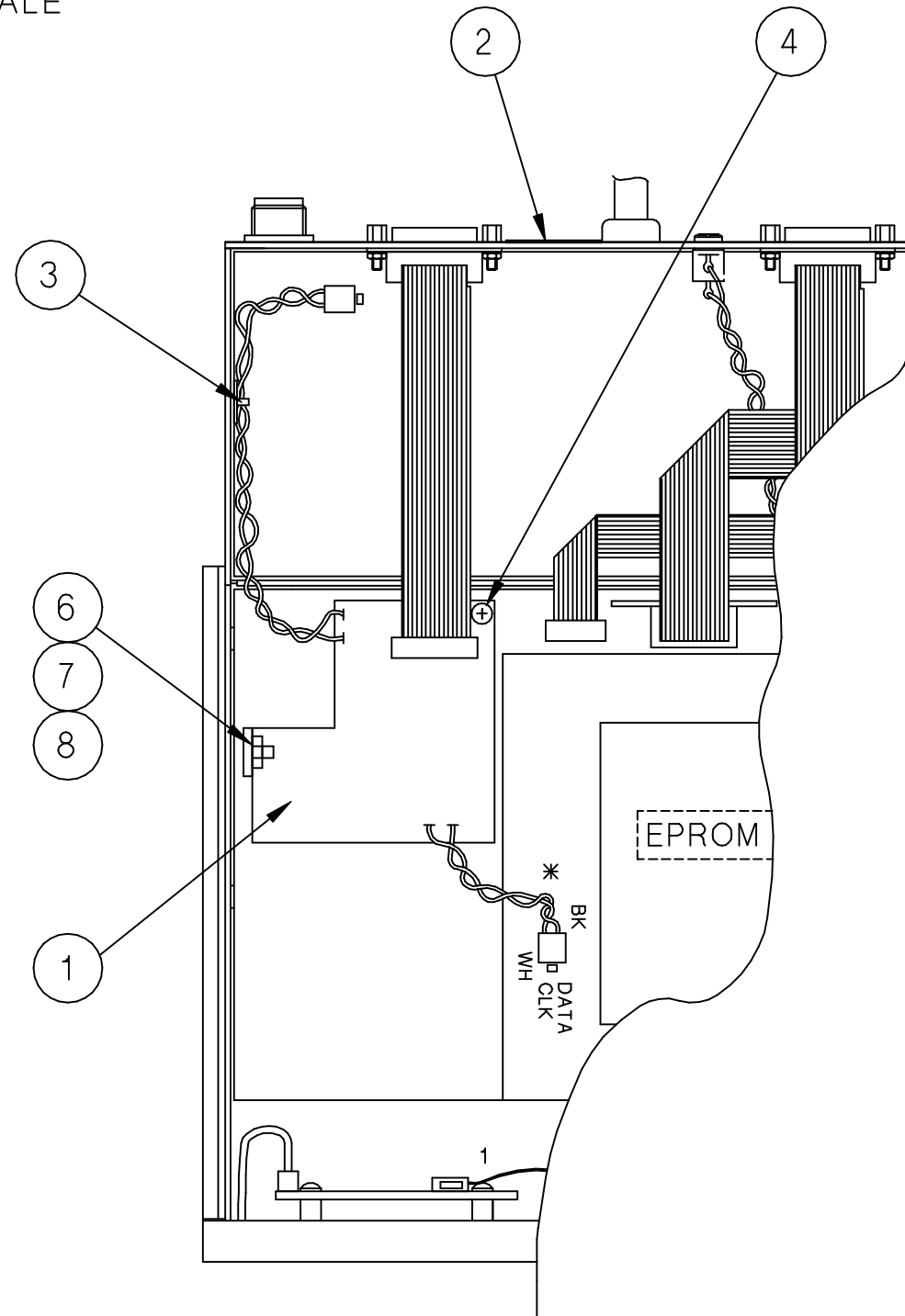
ITEM	PART No.	DESCRIPTION
1	08-04285-001	ANTENNA DRIVER PCB
2	06-01453	LABEL, WARNING
3	30-05102-001	CLAMP, CABLE ADHESIVE
4	31-23020-580	SCREW, M3x20

ISSUE 1
NOTE 2 CHANGED
ITEM 5 DELETED.
C/R 23769
CM 1-11-93

NOTES:

1. REMOVE BOTTOM COVER.
2. IF REQUIRED FIT TWO PIN CONNECTOR *(PART No. 60-00020-260 NOT SUPPLIED) TO THE μ P ASSY - NOTE CORRECT ORIENTATION.
3. REMOVE (ITEMS 6,7&8) AND UNPLUG 16 WAY RIBBON CONNECTOR FROM MOTHERBOARD. REMOVE SCREW FROM MOTHERBOARD SO (ITEM 4) MAY BE FITTED.
4. PLUG (ITEM 1) INTO P201 MAKING SURE THAT THE PINS ENGAGE CORRECTLY.
5. REPLACE (ITEMS 6,7&8) AND FIT (ITEM 4).
6. PLUG 16 WAY RIBBON CABLE INTO (ITEM 1) AND PLUG THE TWO WAY CABLES * INTO THE PA AND μ P PCB AS SHOWN.
7. FIT ADHESIVE CLIP (ITEM 3) AS SHOWN AND SECURE CABLE.
8. CHECK THAT THE SOFTWARE IS ISSUE 3 OR GREATER.
9. FIT WARNING LABEL (ITEM 2) OVER ANTENNA CONTROL ON REAR PANEL.
10. REPLACE BOTTOM COVER.

* IF NECESSARY THE WIRES OF THE SHORT TWISTED PAIR CAN BE SOLDERED DIRECTLY TO THE PCB (BK = DATA WH = CLK)

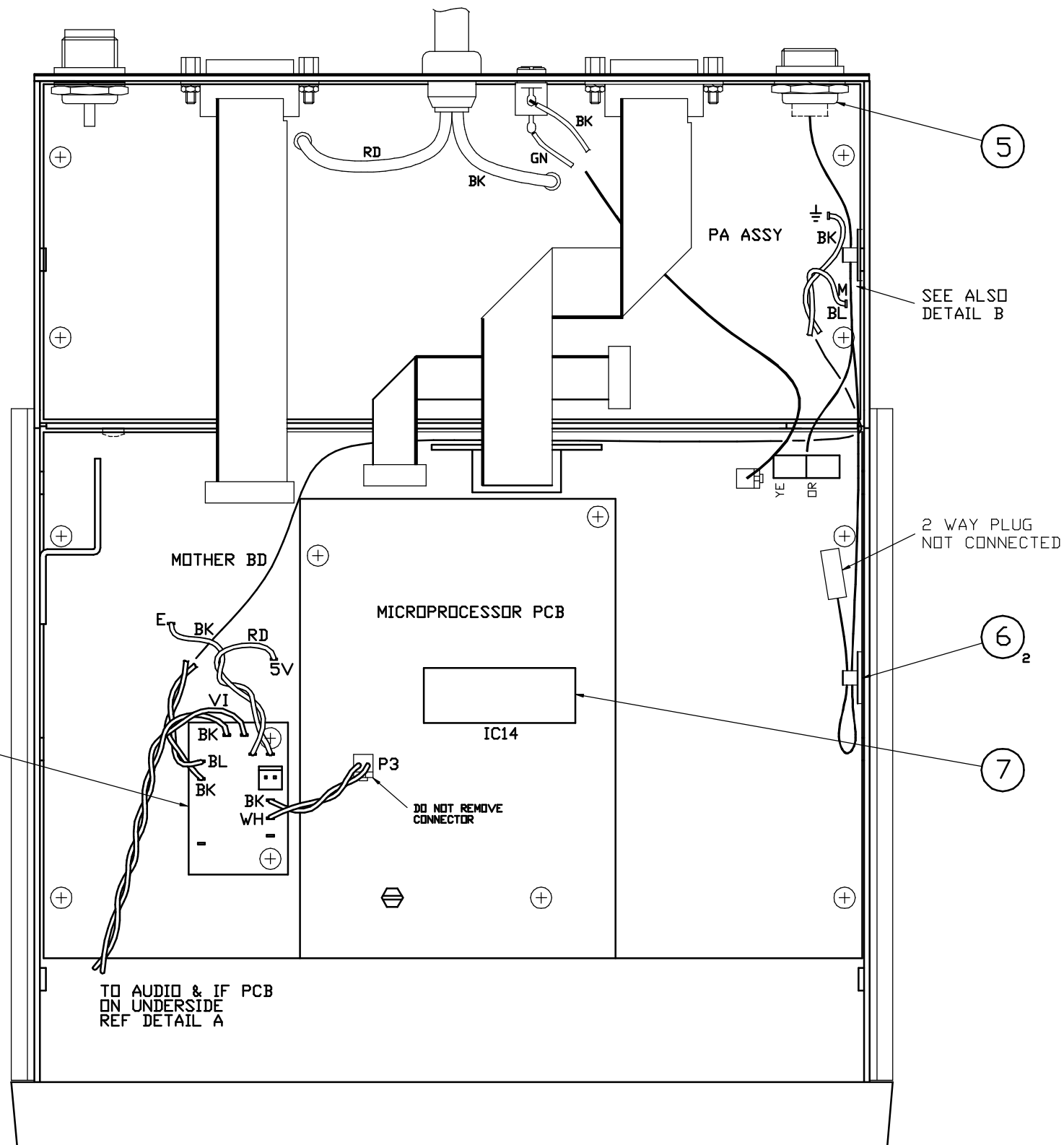
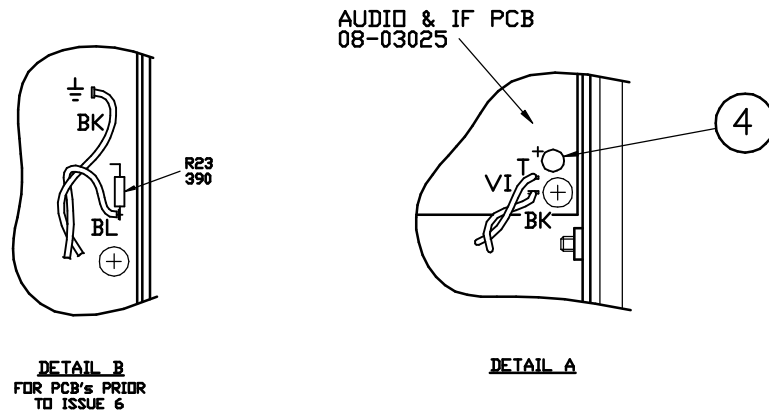


FILE No.
15\10384__1.DWG

DIMENSIONS IN mm

			SCALE NTS	© CODAN PTY LTD, A.C.N. 007 590 605: 2000			
	DRN	APJ	DATE 15-11-90	TITLE OPTION AD			
	CHKD	NJA	15-11-90	FITTING INSTRUCTIONS			
MATERIAL	APPD	CM	1-11-93	DRAWING/DOC NO.			
FINISH	TOLERANCES UNLESS OTHERWISE STATED			A3 15-10384-001			
	2 PLACES DEC.			ISS			
	1 PLACE DEC. ±0.5			1			
0 PLACE DEC. ±1			SHT. 1				
			OF 1				

REF	DESCRIPTION	QTY
1	OPTION DM PCB ASSY 08-05041	1
2	SPACER 05-03312-090	2
3	SCREW M3x5 PAN POZI	4
4	CAPACITOR 10uF/25V TAG	1
5	LOOM, 10 WAY 08-05091	1
6	CLAMP, CABLE ADHESIVE BACKED 30-05102-001	2



ISSUE B
ITEMS 5, 6, 7
ADDED,
NOTES 8, 9 & OPT
'PS' ADDED.
C/R 23930
30-5-94

ISSUE C
ITEM 6 QTY WAS 1
C/R 24101
30-11-94 CM

ISSUE 2
P3 NOTE ADDED,
ADDITION TO
NOTE 4,
SHT 2 ADDED.
C/R 24319
14-8-95 NJA

ISSUE 3
DETAIL B ADDED,
S/No NOTE ADDED,
NOTE 7 CHANGED,
MINOR NOTE
CHANGES.
C/R 24533
8-3-96 CM

IMPORTANT

SHT1 APPLIES ONLY TO 8528 TRANSCEIVERS WITH S/No's LOWER THAN B13000, 8528S LOWER THAN B4000 & 8528 INTERNATIONAL LOWER THAN K3000.

OPTION 'PS' COMPONENTS MUST BE FITTED TO MOTHERBOARD
OPTION 'PS' LOOM SHOULD BE DISCARDED IF FITTED.

NOTES

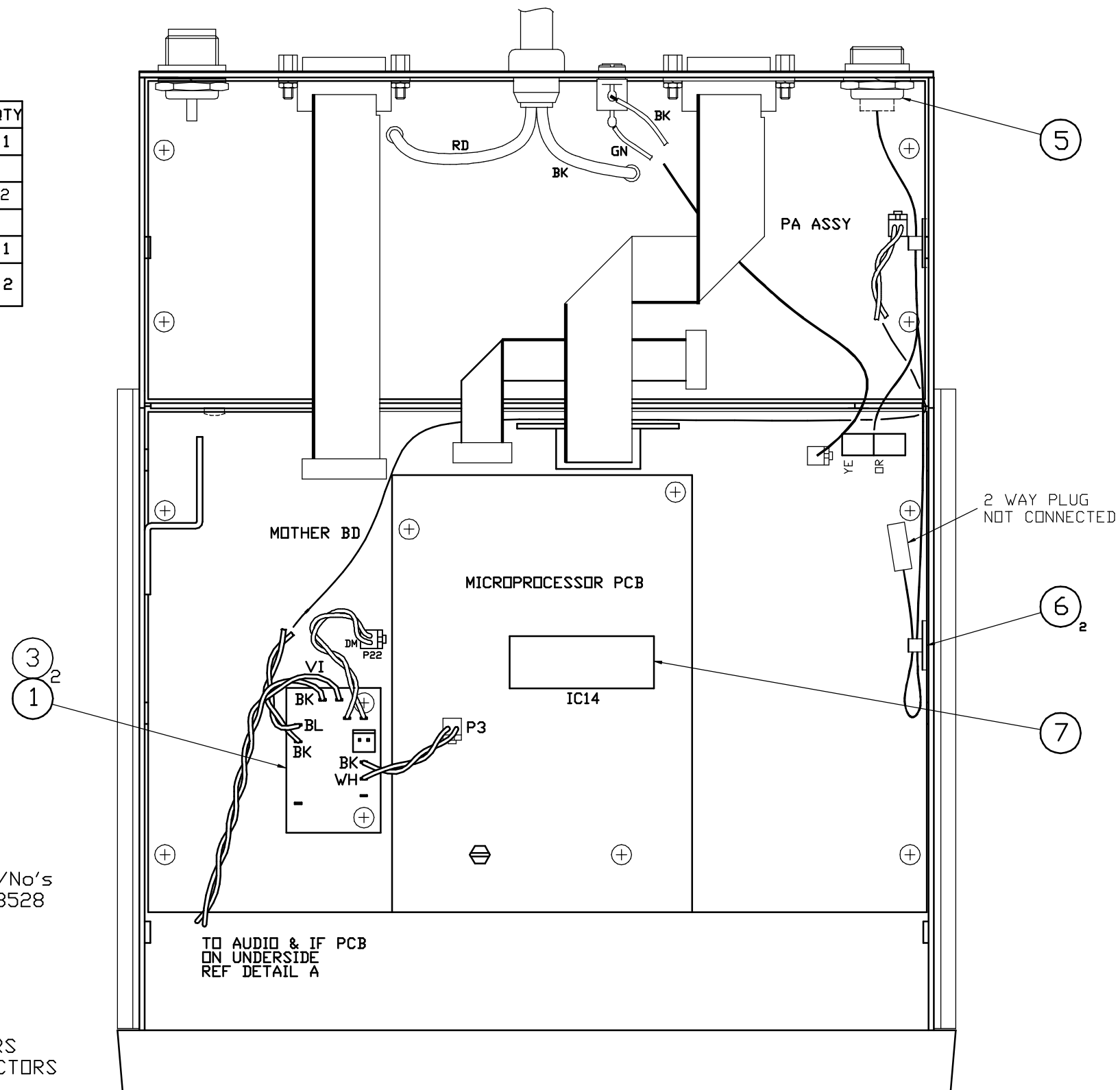
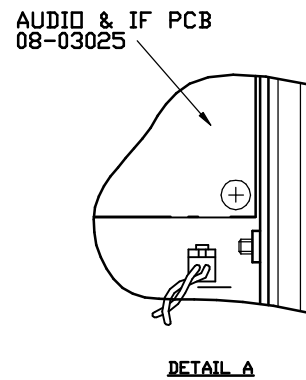
1. REMOVE AUDIO & IF PCB 08-03025.
2. FIT 2 SPACERS (ITEM 2) USING 2 M3x5 SCREWS (ITEM 3) TO MOTHER BD.
3. REPLACE AUDIO & IF PCB.
4. FIT 'OPTION DM' PCB (ITEM 1) TO SPACERS USING 2 M3x5 SCREWS (ITEM 3). CUT OFF UNWANTED CONNECTORS.
5. SOLDER WIRES AS DETAILED & FIT 2 WAY CONNECTOR TO P3 ON MICROPROCESSOR PCB.
6. IF 'OPTION AD' IS FITTED:-
REMOVE PCB ASSY TO SOLDER rd & bk WIRES TO MOTHER BD & THEN REFIT PCB.
REMOVE IT'S 2 WAY CONNECTOR FROM THE uP PCB & FIT ONTO 'OPTION DM' PCB & THEN FIT 'OPTION DM' CONNECTOR TO uP BD P3.
7. CHANGE C57 1uF ON AUDIO & IF PCB TO 10uF (ITEM 4).
8. FIT 10 WAY CONNECTOR & LOOM (ITEM 5) & ATTACH WITH CLAMP (ITEM 6) AS SHOWN.
9. ENSURE EPROM (ITEM 7) IS AT LEAST ISSUE 5.0.

DISC FILE

P/No 15-10411-001 - AS DETAILED

	DRN	DB	SCALE 1:1	© CODAN PTY LTD, A.C.N. 007 590 605 1993	
	CHKD	NJA	DATE 28-10-93	TITLE OPTION DM	
MATERIAL	APPD	CM	DATE 30-11-94	DRAWING/DOC NO.	
FINISH	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC. ±0.25 1 PLACE DEC. ±0.5 ANGULAR ±			A3	15-10411-001
				ISS	SHT. 1
				2 3	OF 2

REF	DESCRIPTION	QTY
1	OPTION DM PCB ASSY 08-05041	1
2	N/A	
3	SCREW M3x5 PAN PDZI	2
4	N/A	
5	LOOM, 10 WAY 08-05091	1
6	CLAMP, CABLE ADHESIVE BACKED 30-05102-001	2



IMPORTANT

SHT2 APPLIES ONLY TO 8528 TRANSCEIVERS WITH S/No's HIGHER THAN B12999, 8528S HIGHER THAN B3999 & 8528 INTERNATIONAL HIGHER THAN K2999.

OPTION 'PS' LOOM SHOULD BE DISCARDED IF FITTED.

NOTES

1. FIT 'OPTION DM' PCB (ITEM 1) TO EXISTING SPACERS USING 2 M3x5 SCREWS (ITEM 3) & FIT TO CONNECTORS AS SHOWN.
2. IF 'OPTION AD' IS FITTED:- REMOVE IT'S 2 WAY CONNECTOR FROM THE uP PCB & FIT ONTO 'OPTION DM' PCB & THEN FIT 'OPTION DM' CONNECTOR TO uP BD P3.
3. FIT 10 WAY CONNECTOR & LOOM (ITEM 5) & ATTACH WITH CLAMP (ITEM 6) AS SHOWN.
4. ENSURE EPROM (ITEM 7) IS AT LEAST ISSUE 5.0.

ISSUE B
REF SHT 1

ISSUE C
REF SHT 1

ISSUE 2
REF SHT1
SHT 2 ADDED.
C/R 24319
14-8-95 CM

ISSUE 3
S/No NOTE ADDED,
MINOR NOTE
CHANGES.
C/R 24533
8-3-96 CM

DISC FILE
10411_2

P/No 15-10411-001 - AS DETAILED

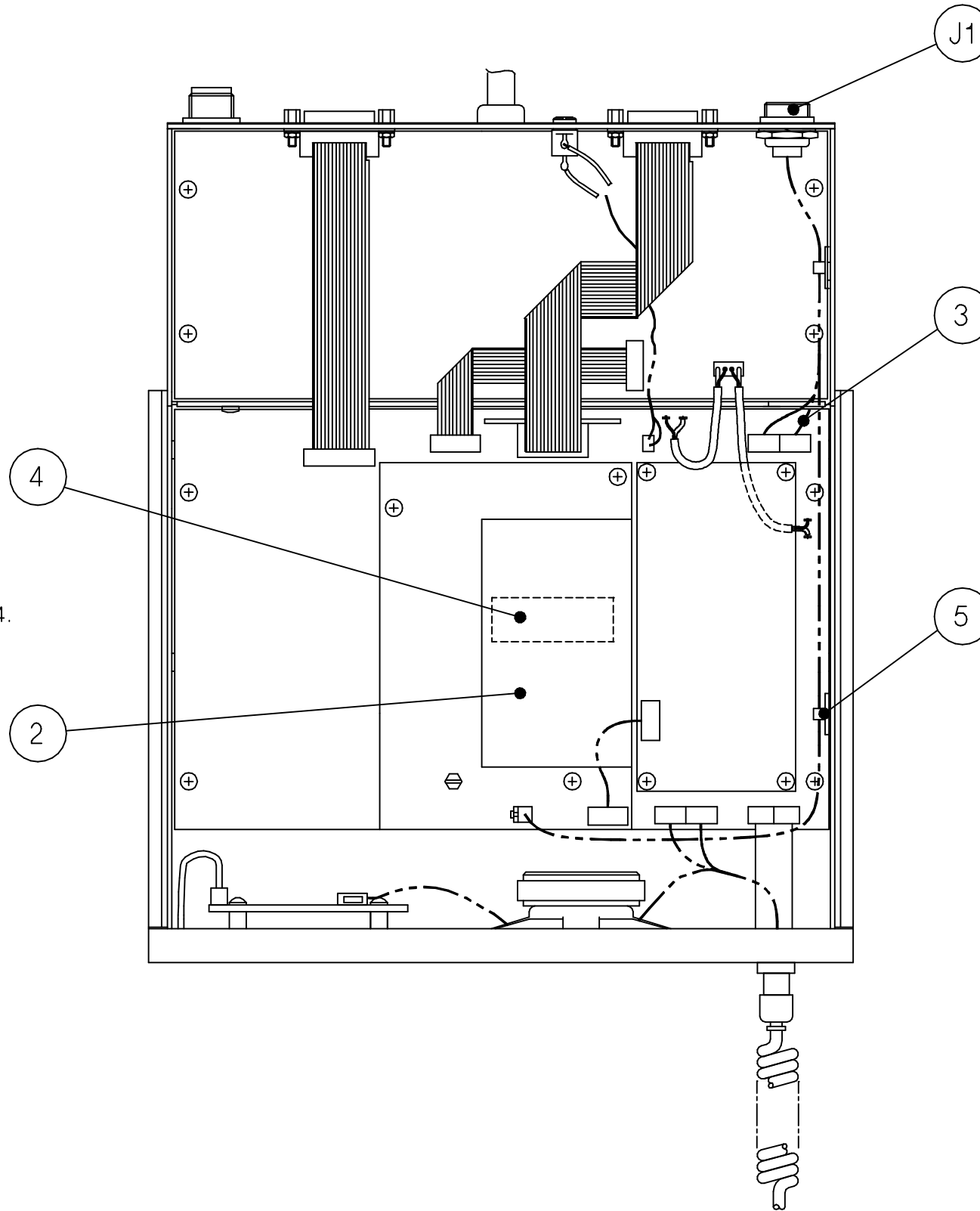
	DRN	DB	SCALE 1:1	© CODAN PTY LTD, A.C.N. 007 590 605 1993 TITLE OPTION DM FITTING INSTRUCTIONS
	CHKD	NJA	DATE 11-8-95	
	APPD	CM	DATE 19-8-95	
FINISH	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC. ± 0.25 1 PLACE DEC. ± 0.5 ANGULAR ±			DRAWING/DOC NO. 15-10411-001
A3				ISS 2 3
				SHT. 2 OF 2

DO NOT SCALE

ITEM	PART No.	DESCRIPTION
1	15-10412-001	FITTING INSTRUCTIONS
2	08-05090-001	MICROPROCESSOR PCB
3	08-05091-001	LOOM, OPT RS
4	90-20540	EPROM
5	30-05102-001	CABLE CLAMP
6	15-10271	OPTION PS

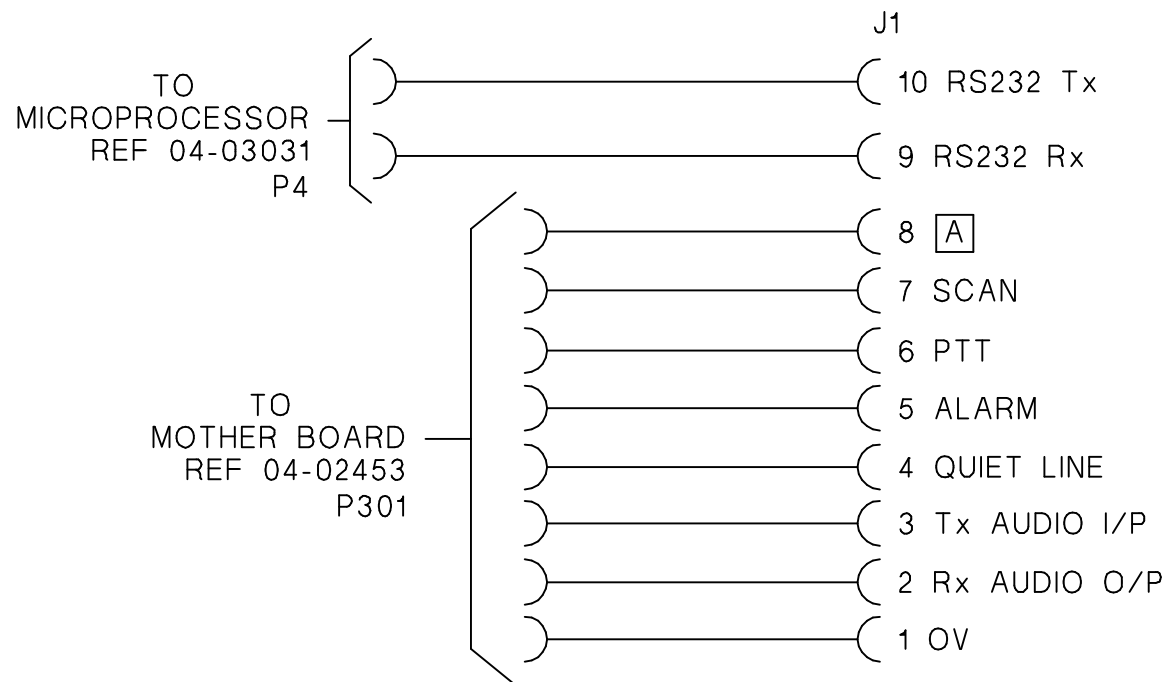
NOTES:

1. REMOVE BOTTOM COVER.
2. FIT OPTION PS COMPONENTS TO MOTHERBOARD. DO NOT FIT PS LOOM.
3. REMOVE MICROPROCESSOR PCB AND REPLACE WITH ITEM 2.
4. CHECK ISSUE NO OF EPROM - ITEM 4. IT IS TO BE AT LEAST 4-4.
5. INSTALL LOOM - ITEM 3 AND ATTACH WITH ITEM 5 AS SHOWN.
6. TEST FOR CORRECT OPERATION.
7. REPLACE BOTTOM COVER.



ISSUE B
OPTION RS ADDED.
C/R 23929
7-4-94 NJA

ISSUE C
ITEM 4 WAS 90-20278
C/R 23930
30-5-94 CAH



DIMENSIONS IN mm

FILE No.
15\10412__C.DWG

			SCALE NTS	© CODAN PTY LTD, A.C.N. 007 590 605: 2000 TITLE	
	DRN	ILT	DATE 17-3-94	FITTING INSTRUCTIONS	
MATERIAL	CHKD	NJA	21-3-94	OPTIONS RS 8528	
FINISH	APPD			DRAWING/DOC NO.	
	TOLERANCES UNLESS OTHERWISE STATED			A3	15-10412-001
	2 PLACES DEC. ±0.10 1 PLACE DEC. ±0.5 0 PLACE DEC. ±1			ISS	
	A	B	C		SHT. 1
					OF 1

The following sections are added to the HF SSB transceiver 8525B/8528 series Technical Service Manual, Codan part number 15-02036 Issue 6, November 1995.

This information is provided in addition to that existing in Chapter 4, *Local Oscillators*. It explains the operation of the new synthesisers.

Drawings associated with this addendum are:

- RF Mixer and Dual Synthesiser Circuit Diagram 04-03120
- RF Mixer and Dual Synthesiser PCB Assembly 08-05295

Local Oscillators (04-03120)

Two synthesised oscillators are used to drive the first and second mixers. The first oscillator operates between 45.250 MHz and 75 MHz in 2 kHz steps. It converts the 250 kHz to 30 MHz receive signal to 45 MHz for the first IF. The second oscillator operates between 43.350 MHz and 43.352 MHz in 10 Hz steps. It converts the 45 MHz first IF to 1650 kHz second IF.

Each oscillator consists of a:

- voltage controlled oscillator
- phase/frequency detector
- loop amplifier
- filter
- reference crystal oscillator (common)

The division ratios required are provided in serial data form by the microprocessor from data stored in the memory.

The reference frequency crystal Z2 (6600 kHz) is held at a constant temperature by a power PTC thermistor (R100) or by a high stability temperature controlled oven (08-05235). The crystal oscillator provides the reference frequency for the two synthesisers. The reference, after being divided by four (1650 kHz), provides the local oscillator drive to the modulator/demodulator for USB operation.

A 1647 kHz (Z3) crystal oscillator drives the modulator/demodulator stages for LSB operation.

Voltage Controlled Oscillator (VCO)

As VCO1 and VCO2 are very similar, only VCO1 will be described in detail. The differences between the two VCOs are detailed in the table below.

	VCO1	VCO2
Varicaps	D17 to D20	D46 and D47
VCO output to synthesiser input pin 4	Via buffer V41 and coupling capacitor C144	Via R45 and C155
Division ratio	Divides to 2 kHz	1.1 kHz to 2 kHz in 10 Hz steps
Filter components	C127, C129, C181, R79, R99 and C123	C179, R166 and C180
Reference frequency	Reference crystal oscillator (6600 kHz)	6600 kHz obtained from IC2 pin 3 and applied to IC3 pin 1

FET V2 operates as a Hartley oscillator tuned by four varicaps D17 to D20. The output level is kept near constant frequency by a negative bias voltage applied to the V2 gate. This voltage is generated from schottky diode D21 charging capacitor C44.

Unity gain feedback amplifier V3 and V4 provides a buffer between the oscillator and the cascade connected amplifier V5 and V6. The second amplifier provides +7 dBm drive to the ring diode mixer D13. The VCO output is buffered by V41, before being applied to synthesiser IC2 pin 4.

Synthesiser for VCO1

Synthesiser IC2 generates a DC control voltage via the phase/frequency detector and control amplifier. This is applied to the varicaps to lock the VCO1 to the nominated frequency.

The 6600 kHz oscillator, part of IC2, is divided down to a 2 kHz reference frequency. The VCO signal applied to pin 4 of IC2 is also divided to produce 2 kHz when VCO1 is at the nominated frequency. Both of these signals are applied to the phase/frequency detector in IC2.

The phase/frequency detector (IC2) provides two outputs. Pin 14 provides a "go down" pulse. Pin 15 provides a "go up" pulse. These outputs are high (+5 V) when locked, except for a very narrow negative going pulse that occurs simultaneously on both outputs.

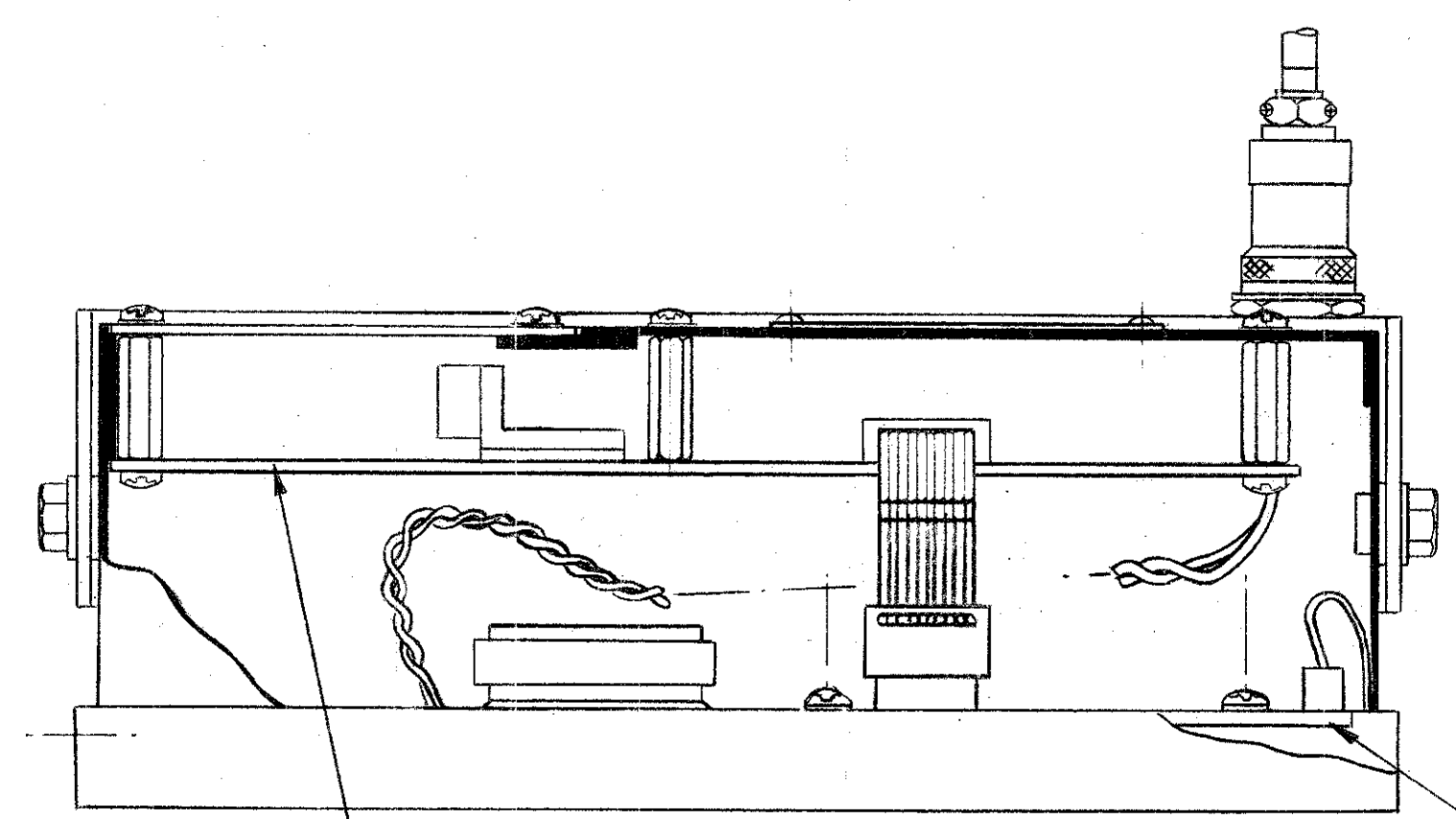
V29 and V30 provide a 3 mA discharging current pulse when pin 14 is low. V28, V31 and V32 provide a 3 mA charging current pulse when pin 15 is low.

These current pulses accumulate in the loop filter (C127, C129, C181 and R79). The resulting voltage is applied to the varicaps (D17 - D20) via a filter (R99 and C123). This filter removes any reference components from the control voltage.

1 2 3 4 5 6 7 8 9 10 11 12

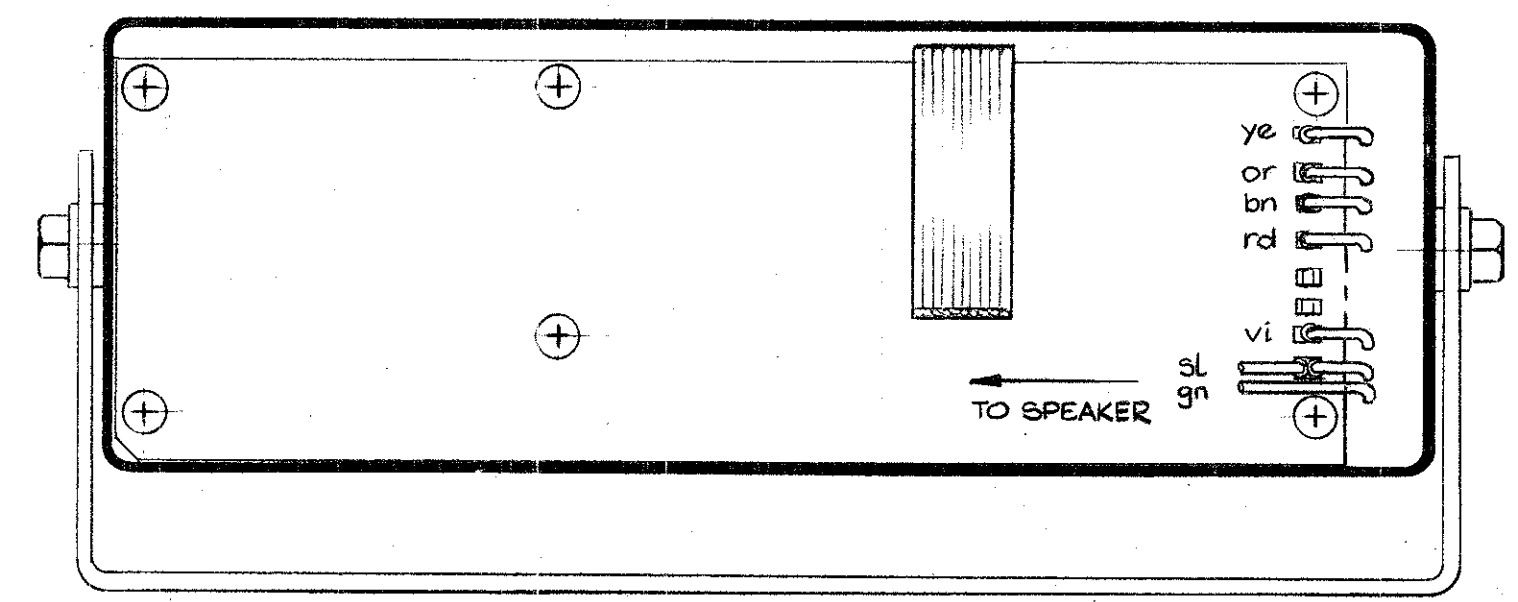
DO NOT SCALE

ISSUE 2
C/R 21219
27-1-87 *MM*



MICROPHONE AMPLIFIER
& INTERFACE P.C.B.
08-03039

DISPLAY BOARD
HEAD
08-03945



INTERNAL VIEW

	DRN.	BW	SCALE	1:1	TITLE CONTROL HEAD LAYOUT
	CHKD.	AKS	DATE	16-10-86	
MATERIAL	APPD.	MM	30-10-86	TOLERANCES UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±	DRAWING/DOC NO. 16-00035-003
FINISH	ISS		X23		
					OF /

M

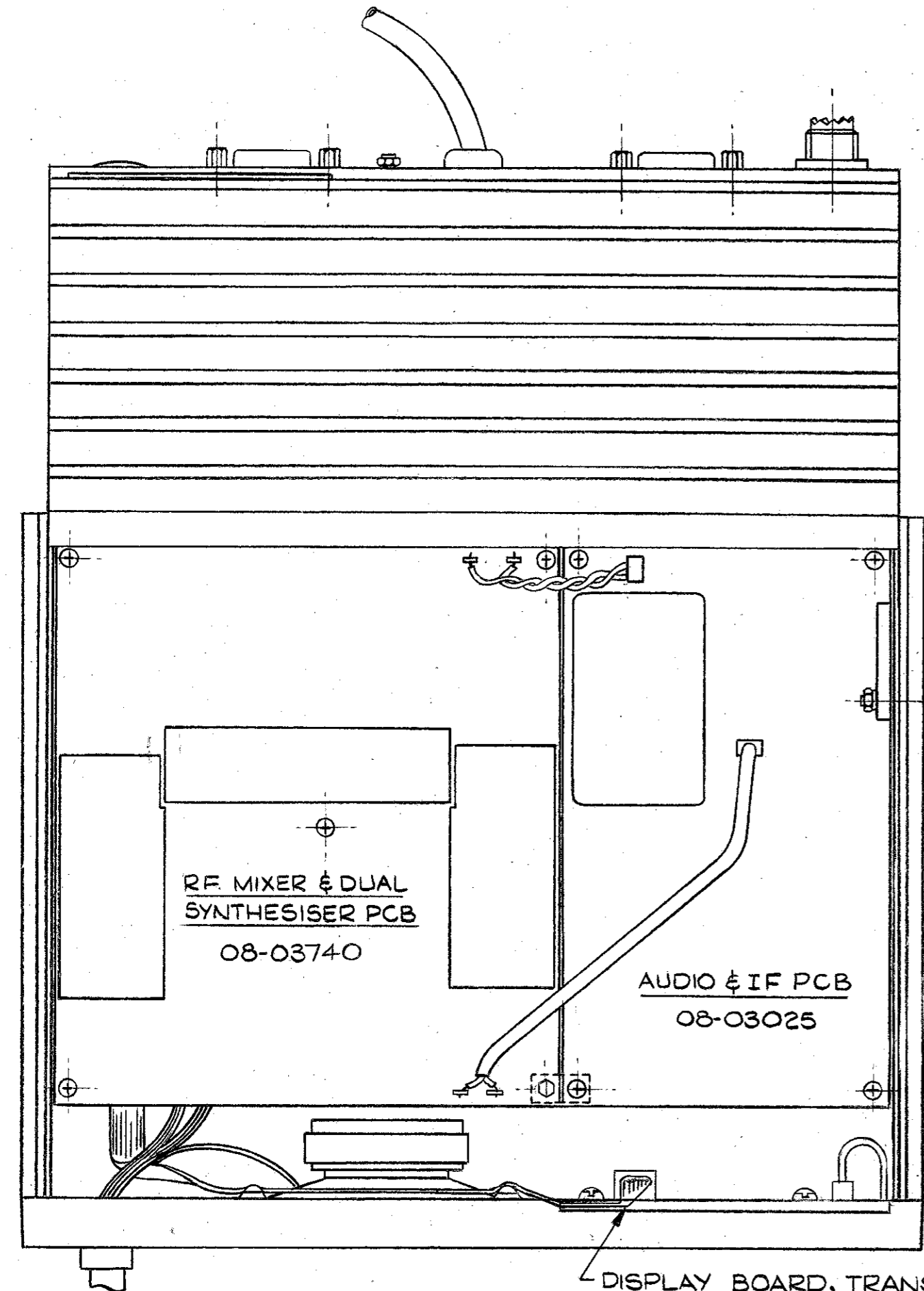
400

1 2 3 4 5 6 7 8 9 10 11 12

DO NOT SCALE

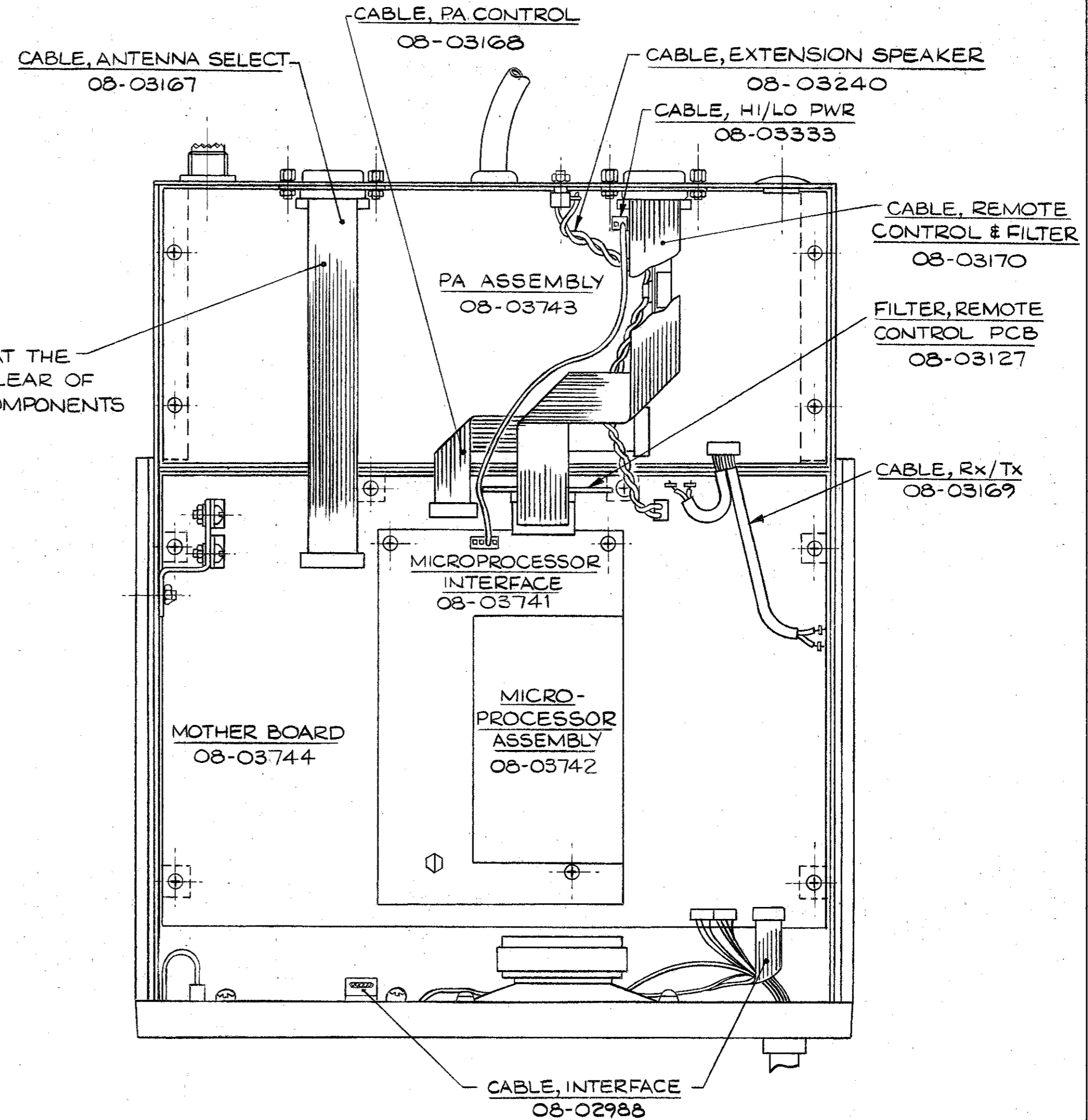
ISSUE 2
C/R 21219
CABLE ADDED
23-1-87 *MM*

A
B
C
D
E
F
G
H



DISPLAY BOARD, TRANSCEIVER
08-03944 8525
08-03745 8528

ENSURE THAT THE
CABLE IS CLEAR OF
RF FILTER COMPONENTS



CABLE, ANTENNA SELECT
08-03167

CABLE, PA CONTROL
08-03168

CABLE, EXTENSION SPEAKER
08-03240

CABLE, HI/LO PWR
08-03333

CABLE, REMOTE CONTROL & FILTER
08-03170

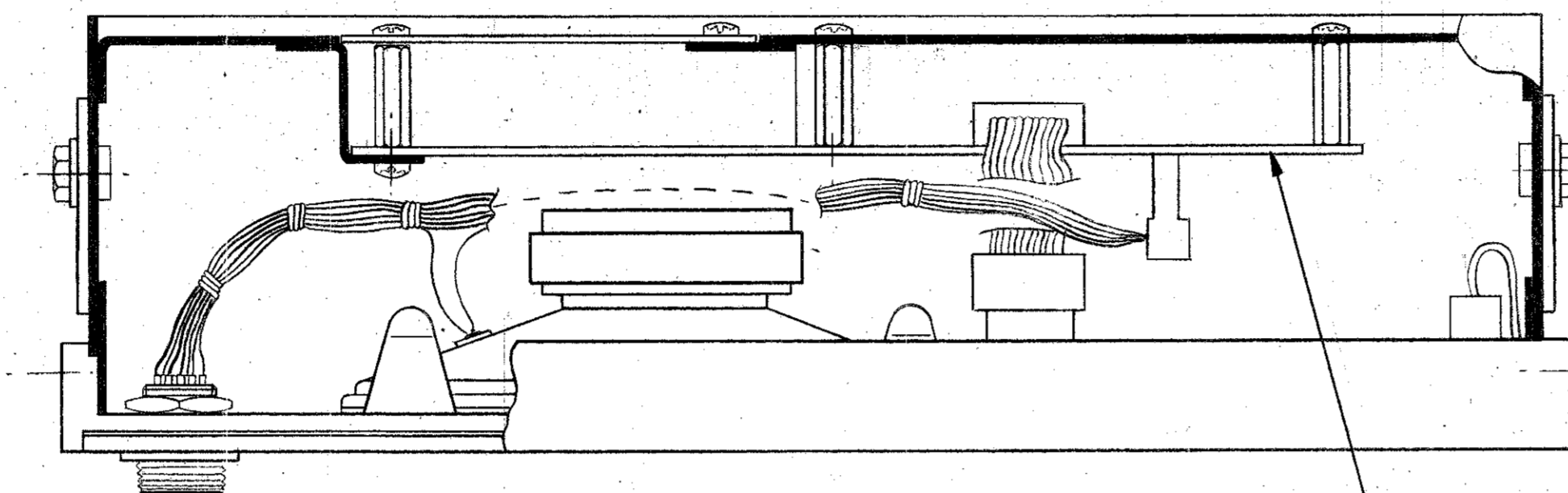
FILTER, REMOTE CONTROL PCB
08-03127

CABLE, Rx/Tx
08-03169

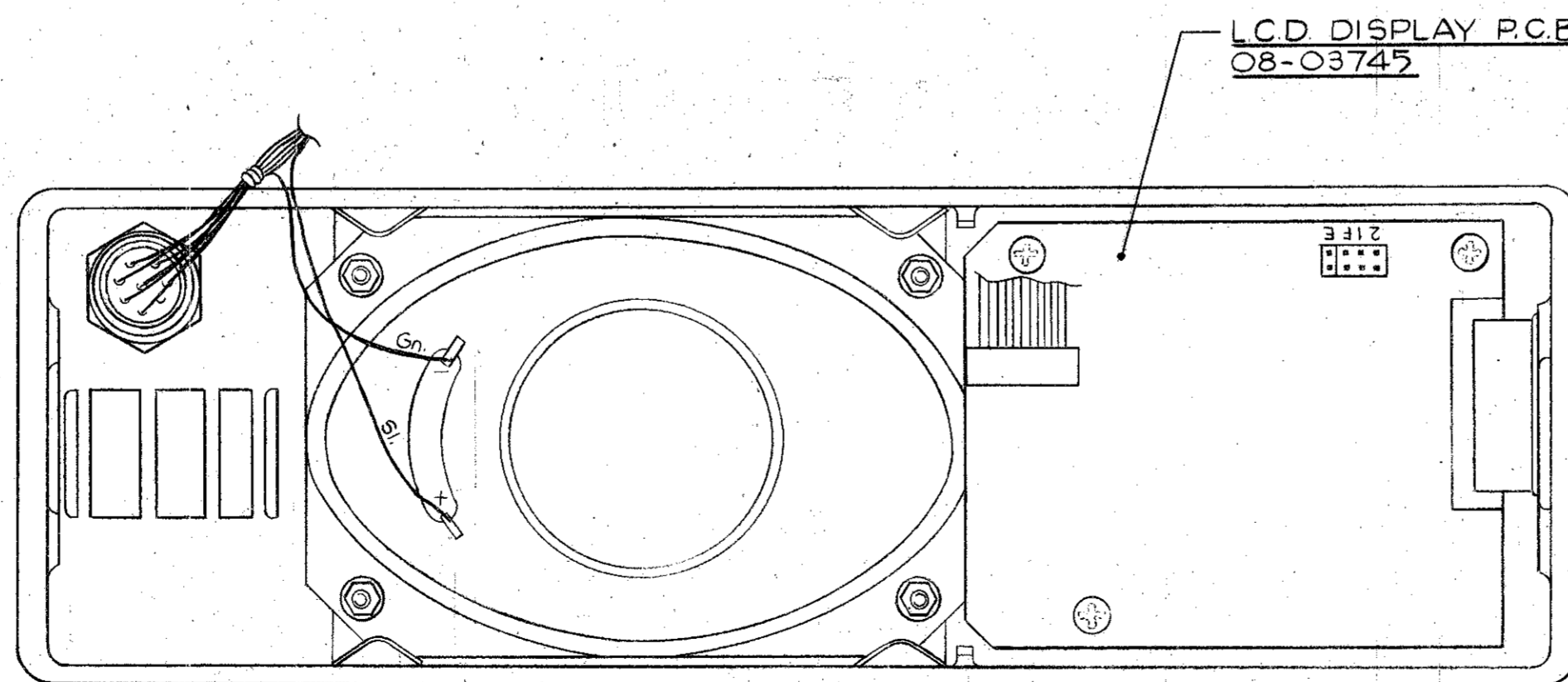
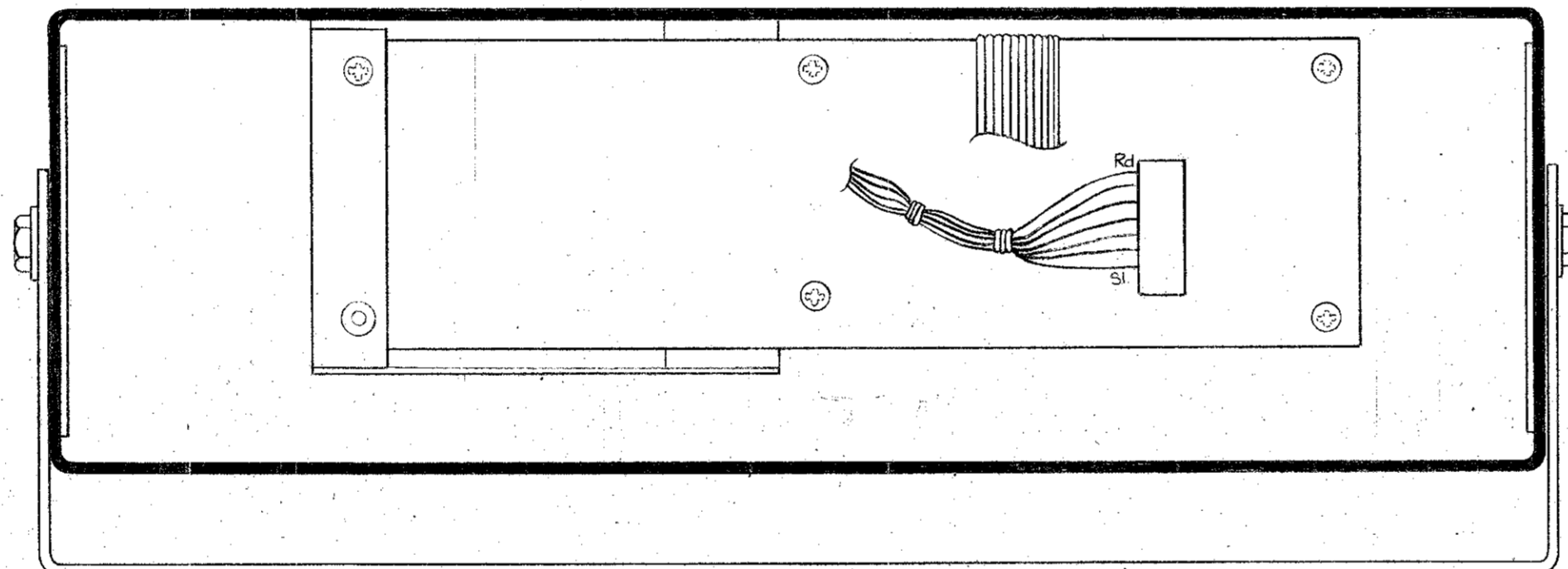
CABLE, INTERFACE
08-02988

	DRN.	APR.	DATE	TITLE TRANSCEIVER LAYOUT
	CHKD.	<i>AWG</i>	22.10.86	
MATERIAL	APPD.	<i>MM</i>	30-10-86	DRAWING/DOC NO. A2 16-00035-004
	TOLERANCES UNLESS OTHERWISE STATED			
FINISH	ISS	1	23	SHT OF
	2 PLACES DEC ± 1 PLACE DEC ± ANGULAR ±			

DO NOT SCALE



MICROPHONE AMPLIFIER AND INTERFACE PCB
08-03039



L.C.D. DISPLAY P.C.B.
08-03747

	DRN. 0.S.	SCALE 1:1	TITLE CONTROL HEAD LAYOUT DRAWING/DOC NO. A1 16-00035-005	COPYRIGHT CODAN 19
	CHKD. <i>[Signature]</i>	DATE 15-9-89		
FINISH	APPD. <i>[Signature]</i>	18-9-89	UNLESS OTHERWISE STATED 2 PLACES DEC ± 1 PLACE DEC ± ANGULAR +	ISS 1 SHT 1 OF 1

566



Codan Pty Ltd
ACN 007 590 605
81 Graves Street
Newton
South Australia

PO Box 96
Campbelltown
South Australia
5074

Telephone
National (08) 8305 0311
Internat'l +61 8 8305 0311
Facsimile (08) 8305 0411

9103 Automatic Antenna Tuner - Serial Nos A1312 - A1342

Symptom

The 9103 tuner has recently incorporated a revised Printed Circuit Board (PCB) Artwork to include components necessary for scanning when used with Coda 85... series transceivers.

An error has been discovered on the PCB silkscreen whereby Capacitor C88 (2.2 μ F) may have been inserted incorrectly. The silkscreen identifies the +ve terminal of C88 closest to capacitor C87 and is incorrect. The +ve terminal should be located closest to Resistor R64.

On units with Serial Nos greater than A1342 the error has been rectified and the incorrect identifier on the PCB removed however, the possibility exists for some units in the Serial No. range A1312 - A1342 to have had the capacitor wrongly inserted. Whilst this may not be apparent from tuner operation, the capacitor may break down over a long period of time resulting in poor scan operation.

Remedy

Owners of Tuners with Serial Nos in the above range are advised to check the orientation of capacitor C88 and replace it where incorrect. This can be accomplished by the following:

- I. Remove 10 screws securing the Tuner lid
- II. Remove 4 screws securing the shielding plate
- III. Check the orientation of Capacitor C88 as per the attached Fig 1 and if incorrect -
 - (a) Remove 4 screws securing the PCB, desolder Capacitor C88 and replace it with one correctly oriented.
 - (b) Carefully scratch off the + sign on the PCB adjacent to C88 to avoid future confusion;
 - (c) Replace the PCB
- IV. Re-assemble the Tuner

The Tuner should then be checked for correct operation.

Replacement capacitors can be made available from Codan's Service Department.

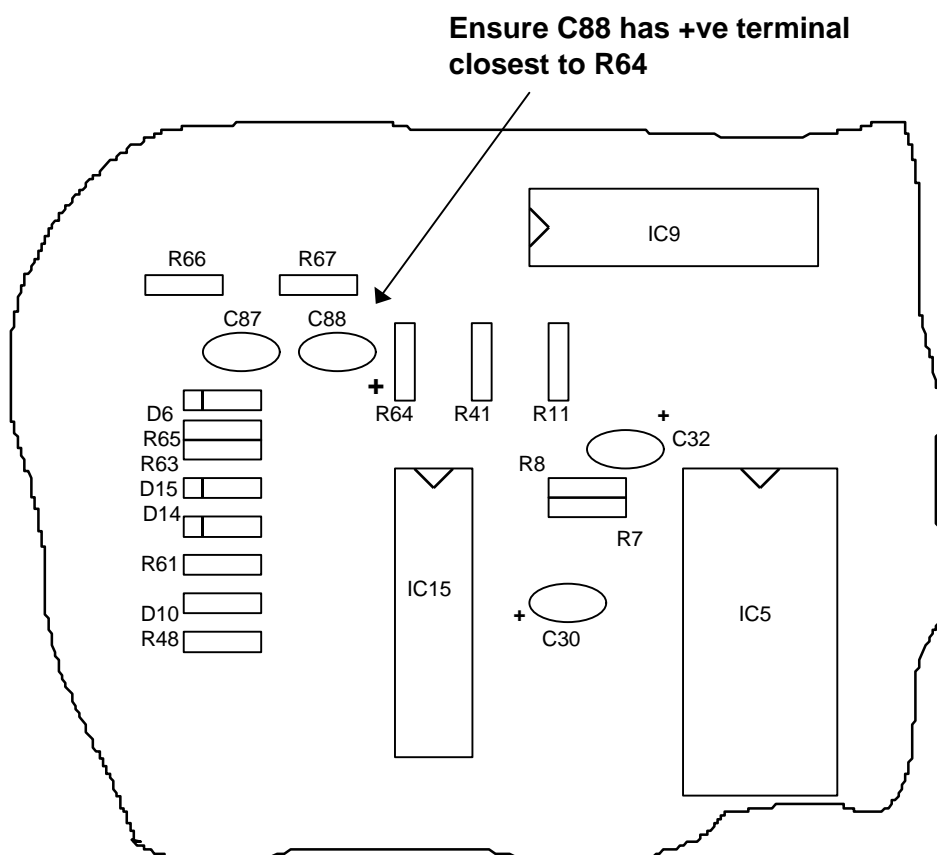


Figure 1. Part of 9103 Tuner Assembly