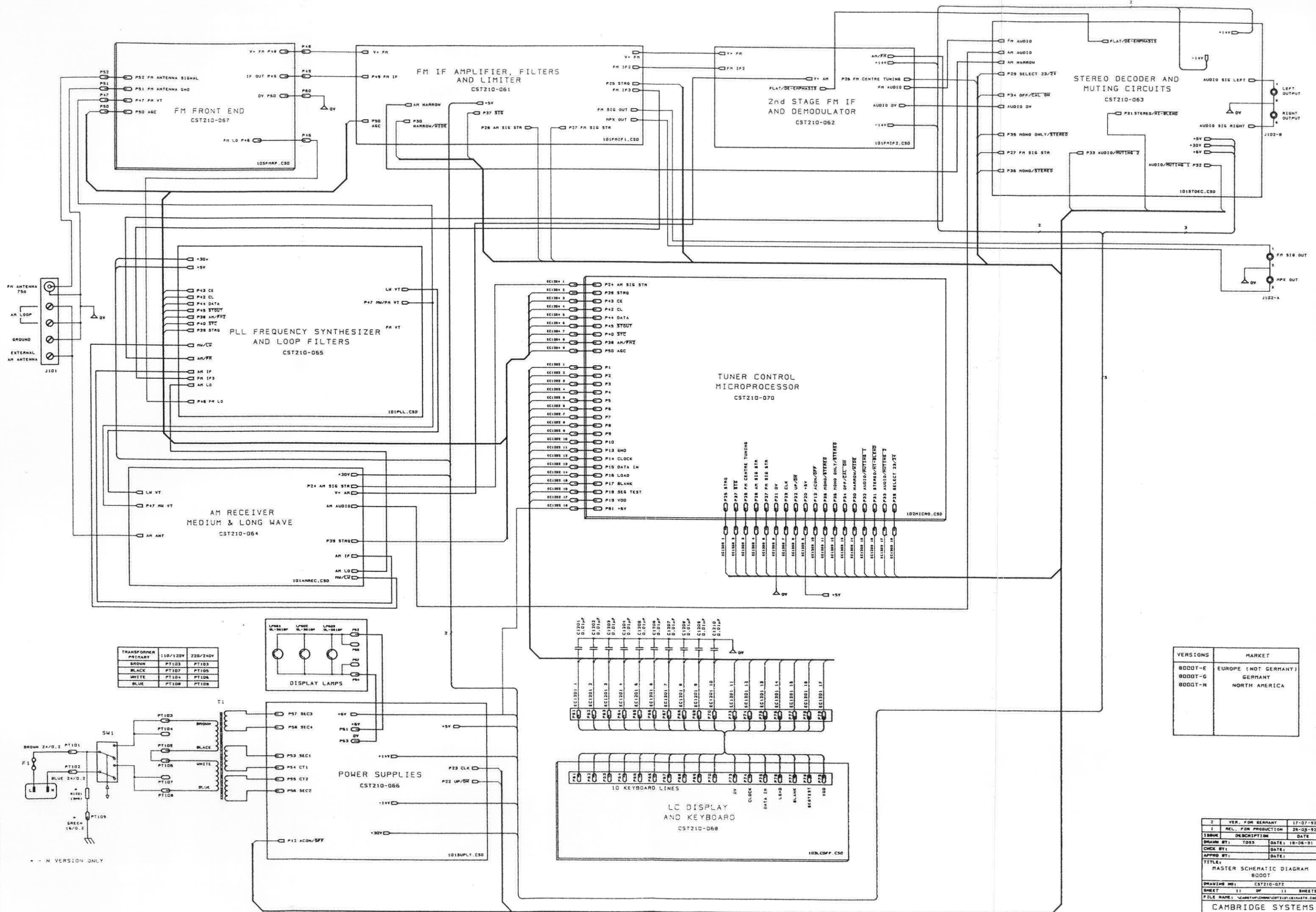


Audiolab 8000T

**FM/AM Tuner
Temporary
Service Manual**



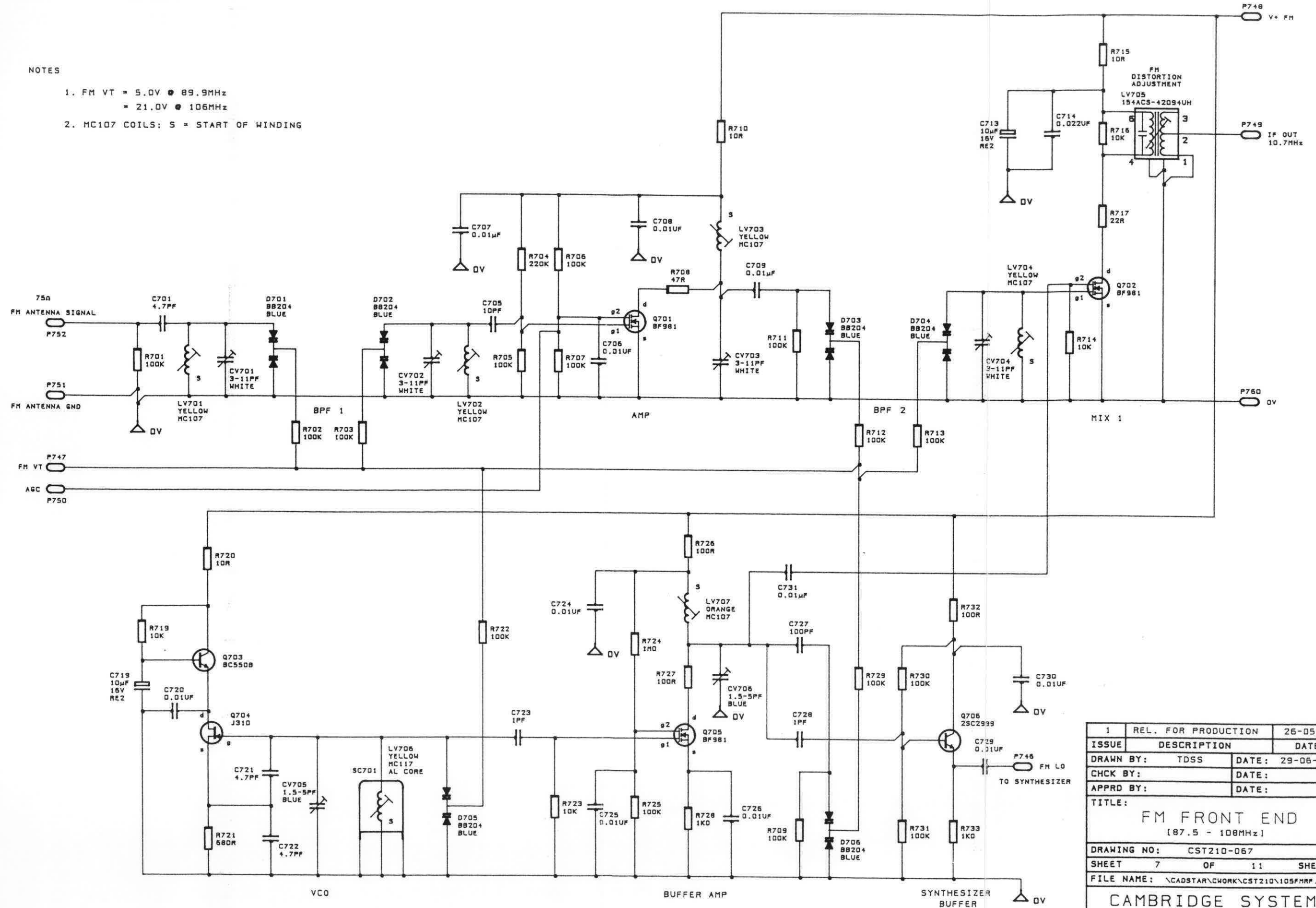
TRANSFORMER	110/120V	220/240V
BROWN	PT103	PT103
BLACK	PT107	PT105
WHITE	PT104	PT106
BLUE	PT108	PT108

VERSIONS	MARKET
8000-E	EUROPE (NOT GERMANY)
8000-G	GERMANY
8000-N	NORTH AMERICA

2	VER. FOR SERAHY	17-07-92
1	REL. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY:	TDS	DATE: 18-06-91
CHECK BY:		DATE:
APPRO BY:		DATE:
TITLE:		
MASTER SCHEMATIC DIAGRAM		
8000		
DRAWING NO: CST210-072		
SHEET	11	OF 11 SHEETS
FILE NAME: \CAMSYS\CHUNK\CST210\11MSTR.CM		
CAMBRIDGE SYSTEMS		
TECHNOLOGY LTD. A1		

NOTES

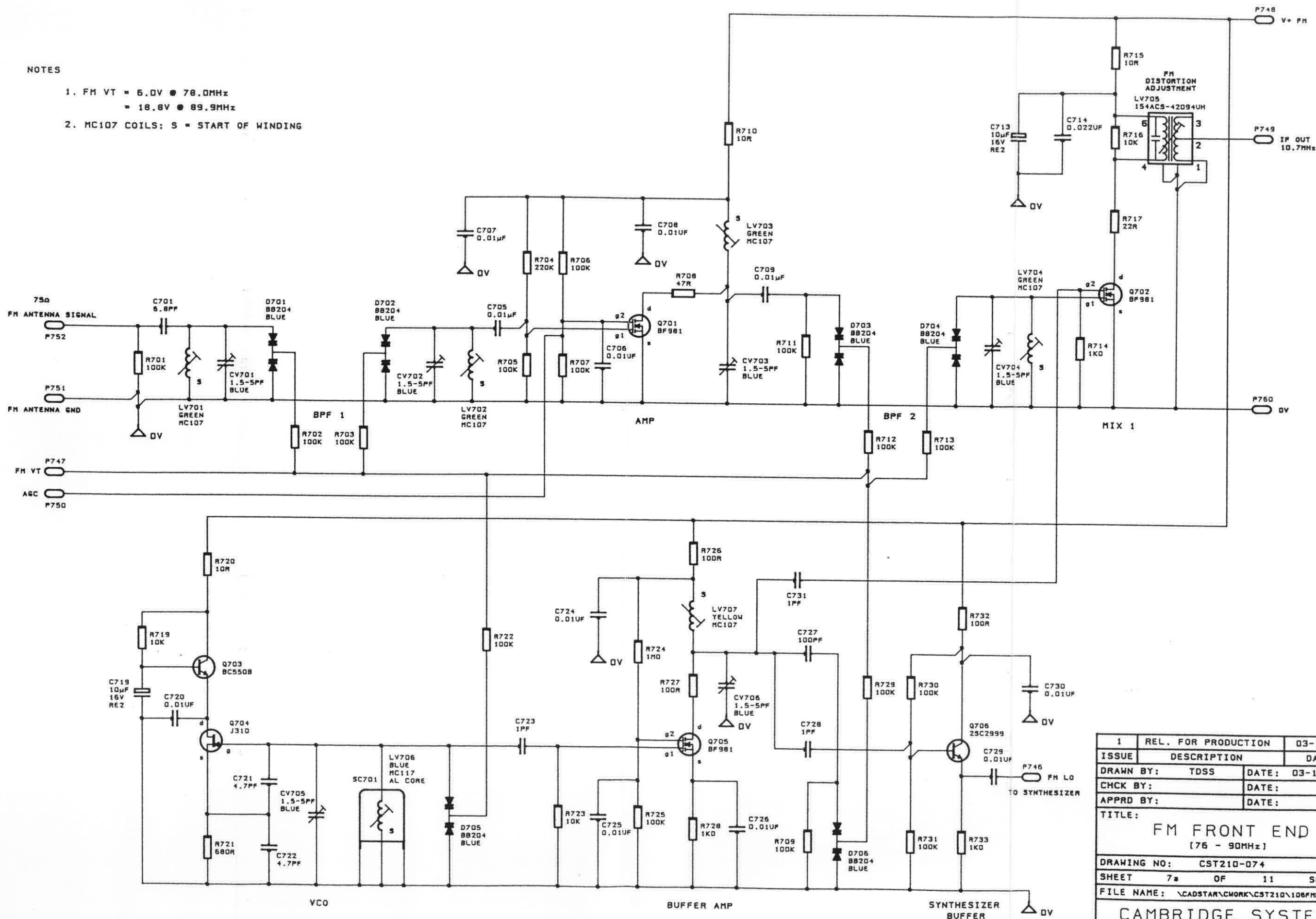
1. FM VT = 5.0V @ 89.9MHz
= 21.0V @ 106MHz
2. MC107 COILS: S = START OF WINDING



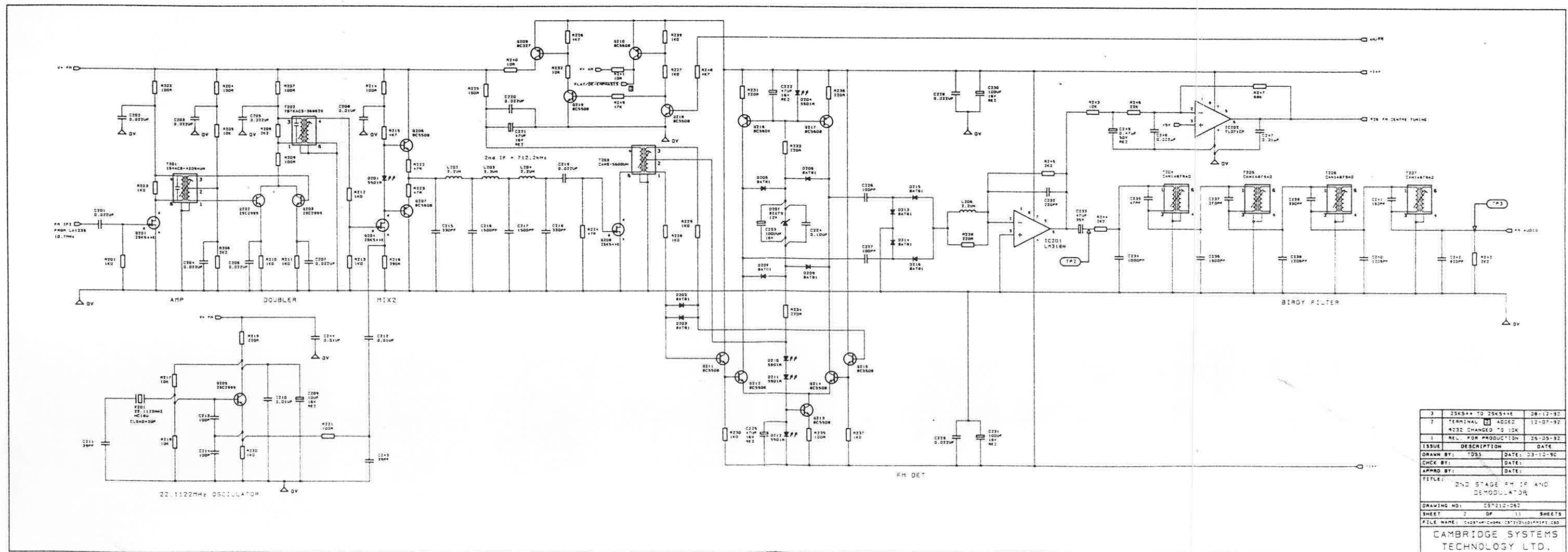
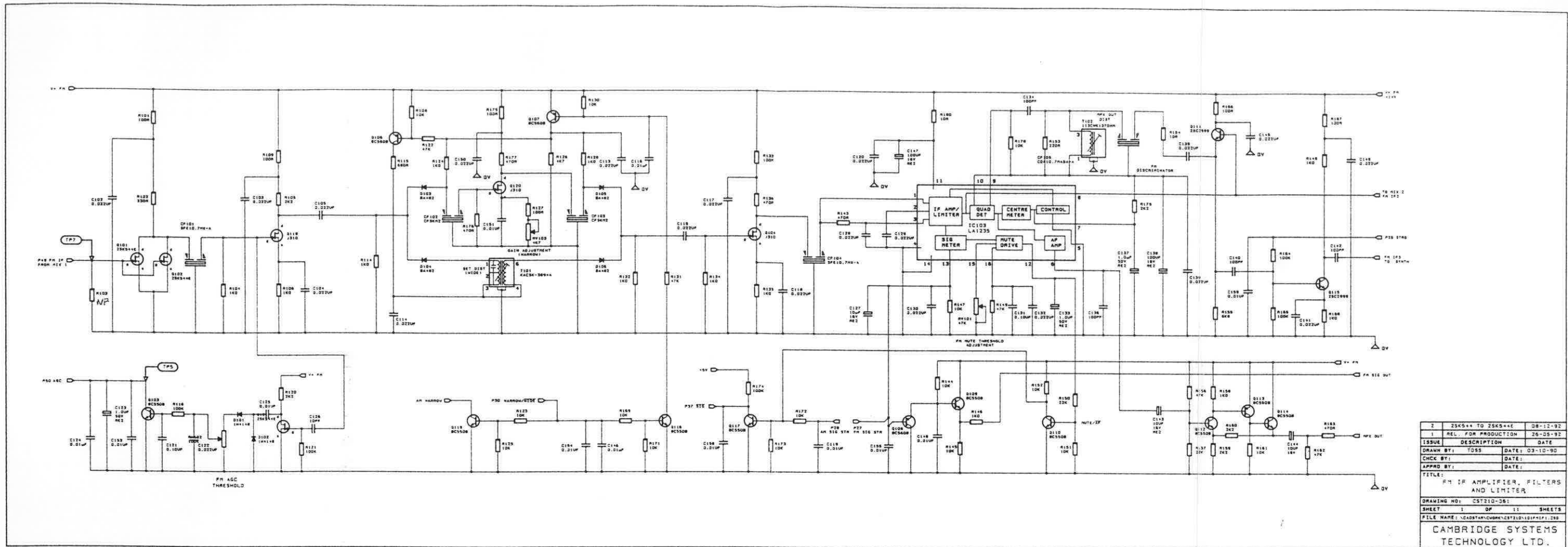
1	REL. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY:	TDSS	DATE: 29-06-90
CHCK BY:		DATE:
APPRD BY:		DATE:
TITLE:		
FM FRONT END (87.5 - 108MHz)		
DRAWING NO: CST210-067		
SHEET 7 OF 11 SHEETS		
FILE NAME: \CADSTAR\WORK\CST210\105FHRP.CSD		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD. A3		

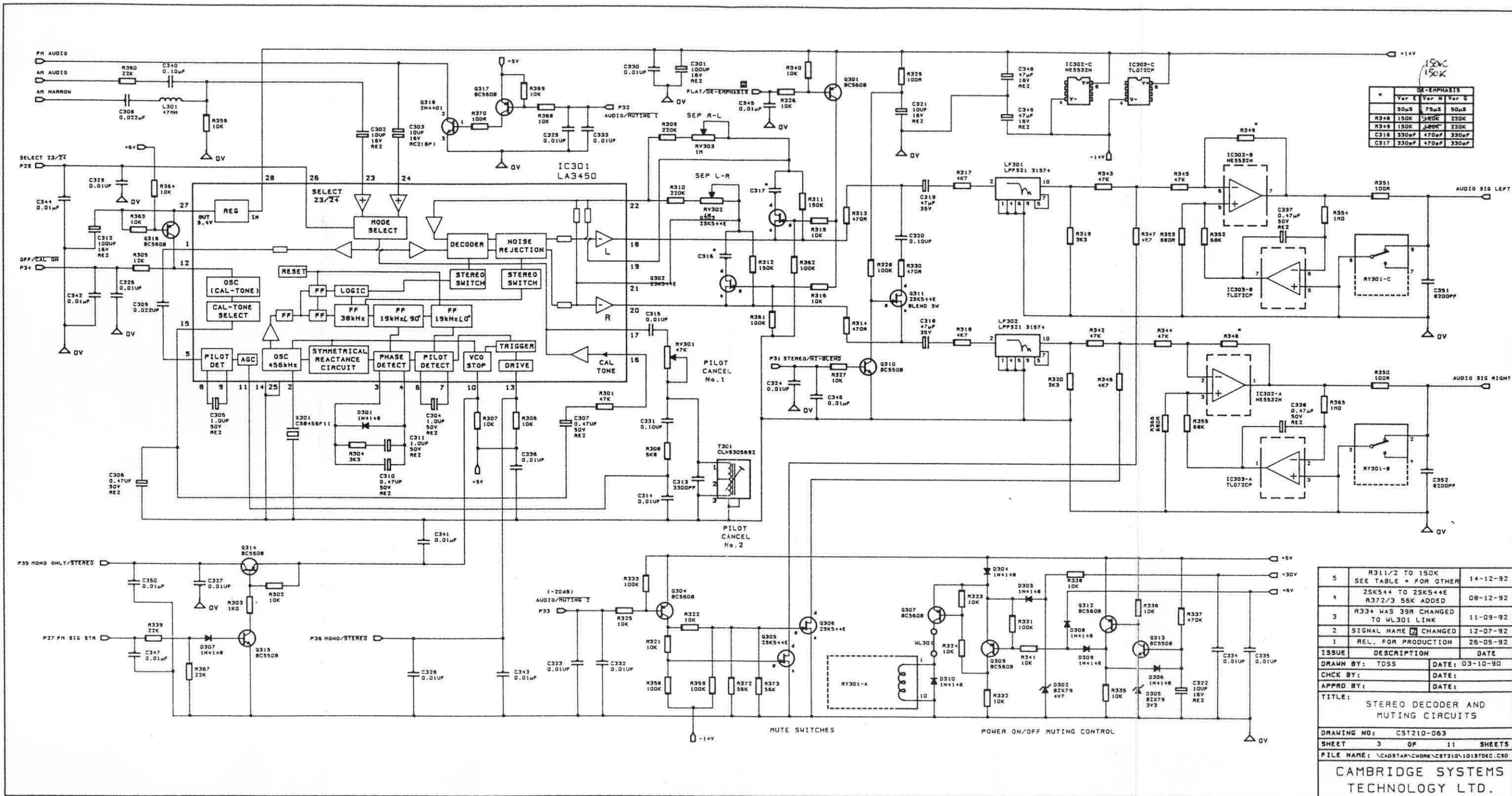
NOTES

1. FM VT = 5.0V @ 78.0MHz
= 18.8V @ 89.9MHz
2. MC107 COILS: S = START OF WINDING



1	REL. FOR PRODUCTION	03-11-92
ISSUE	DESCRIPTION	DATE
DRAWN BY:	TDSS	DATE: 03-11-92
CHCK BY:		DATE:
APPRD BY:		DATE:
TITLE:		
FM FRONT END (76 - 90MHz)		
DRAWING NO: CST210-074		
SHEET 7a OF 11 SHEETS.		
FILE NAME: \CADSTAR\CHORK\CST210\106FMRP.CSD		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD. A3		





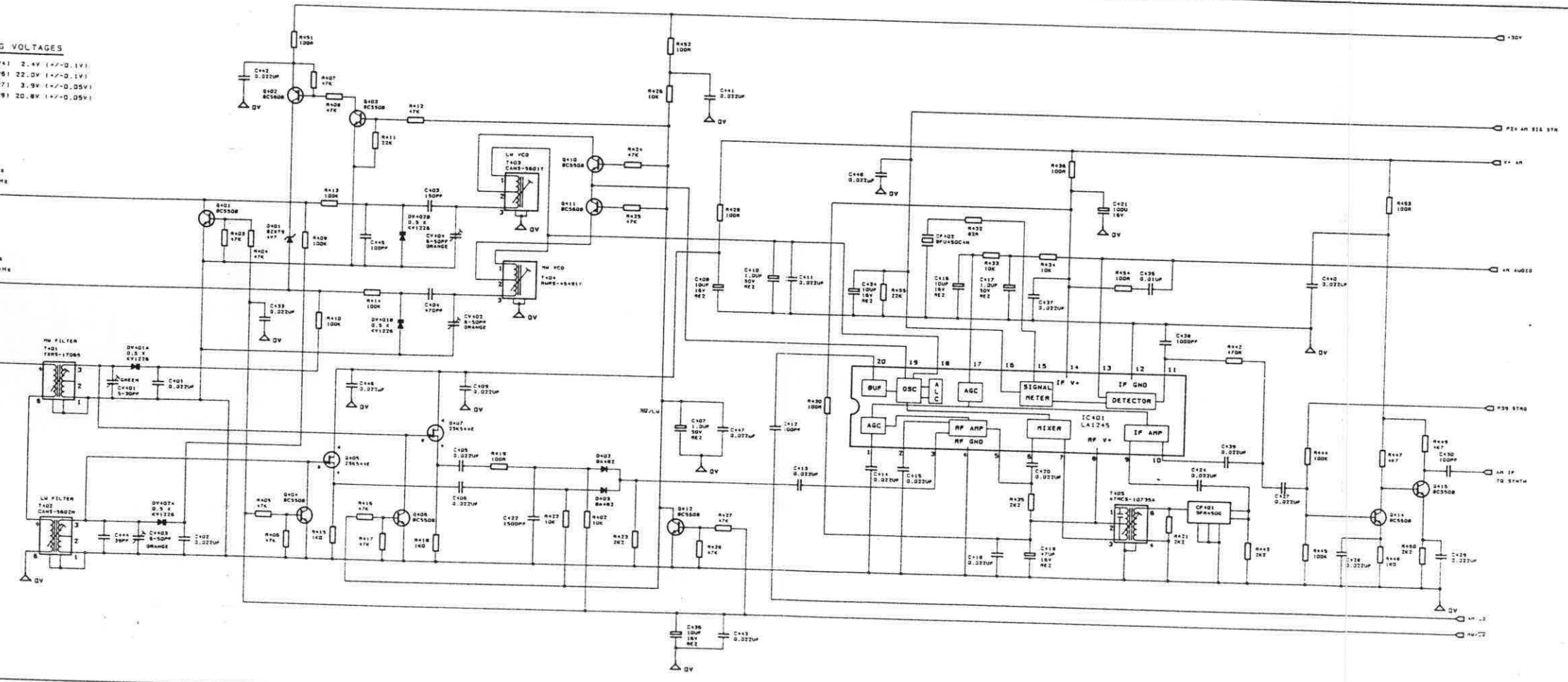
150K
150K

	DE-EMPHASIS		
	Var 1	Var 2	Var 3
R348	50uS	75uS	50uS
R349	150K	100K	220K
C318	330pF	470pF	330pF
C317	330pF	470pF	330pF

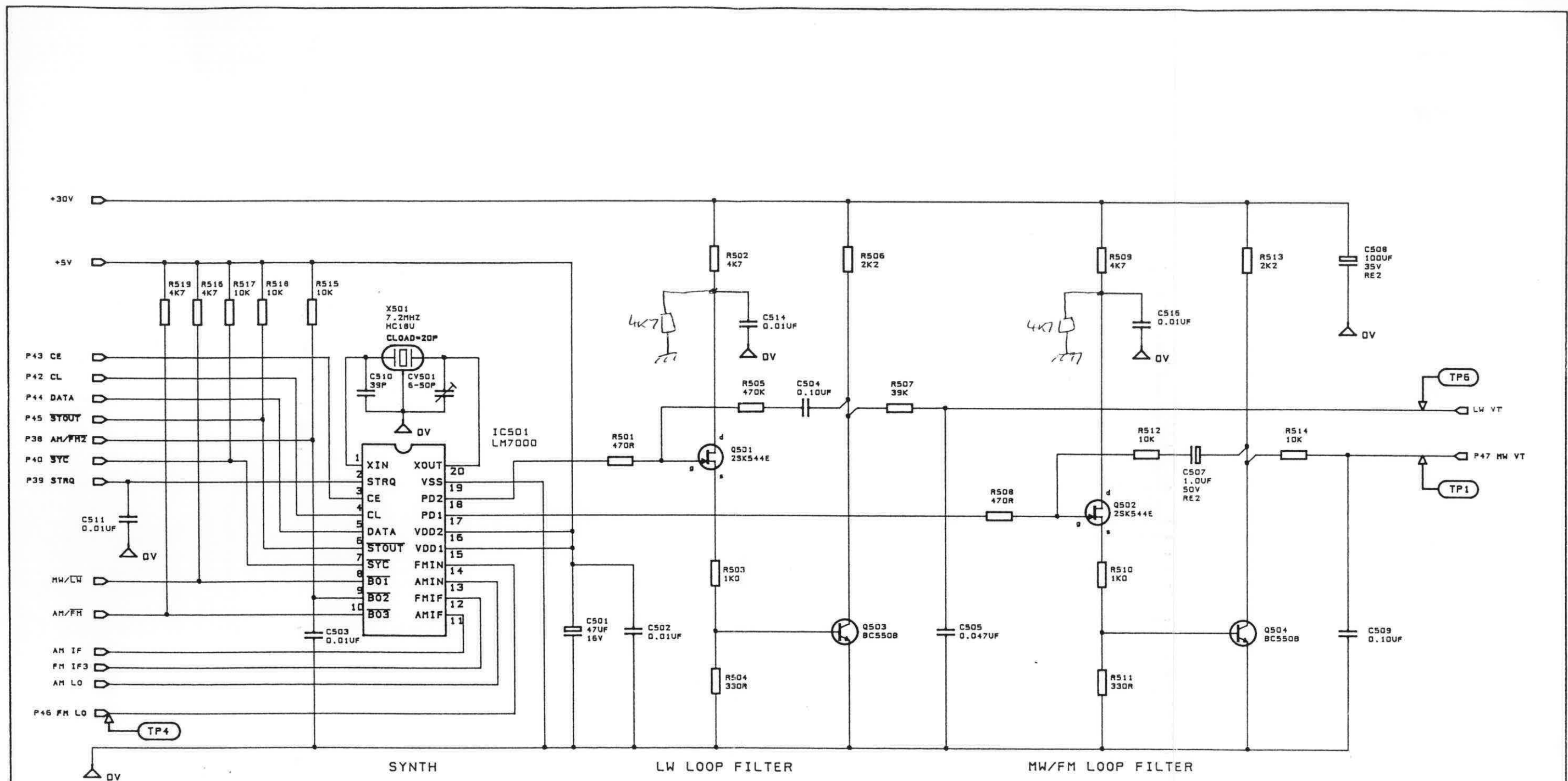
5	R311/2 TO 150K SEE TABLE * FOR OTHER	14-12-92
4	25K544 TO 25K544E R372/3 56K ADDED	08-12-92
3	R334 WAS 39K CHANGED TO WL301 LINK	11-09-92
2	SIGNAL NAME <input checked="" type="checkbox"/> CHANGED	12-07-92
1	REL. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY: TDSS		DATE: 03-10-90
CHK BY:		DATE:
APPRD BY:		DATE:
TITLE: STEREO DECODER AND MUTING CIRCUITS		
DRAWING NO: CST210-063		
SHEET 3 OF 11 SHEETS		
FILE NAME: \CADSTAP\CWORK\CST210\1018TDEC.C3D		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD.		

TUNING VOLTAGES
 MW 540KHZ (P4) 2.4V (+/-0.1V)
 MW 1930KHZ (P6) 22.0V (+/-0.1V)
 LW 1930KHZ (P7) 3.9V (+/-0.05V)
 LW 279KHZ (P9) 20.8V (+/-0.05V)

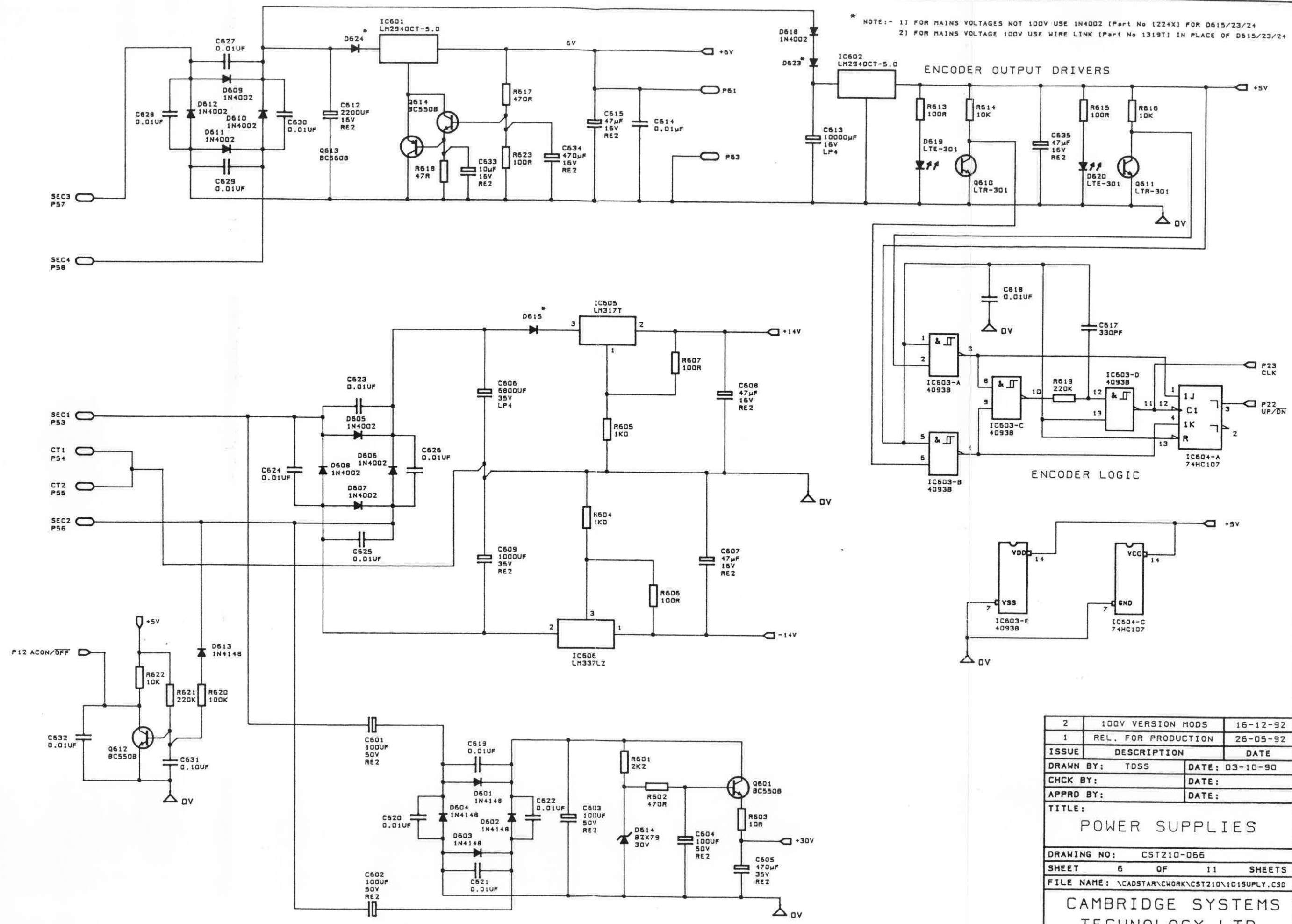
VT (MW) = 3.9V @ 157kHz
 + 20.8V @ 279kHz
 VT (LW) = 2.4V @ 540kHz
 + 22.0V @ 1930kHz



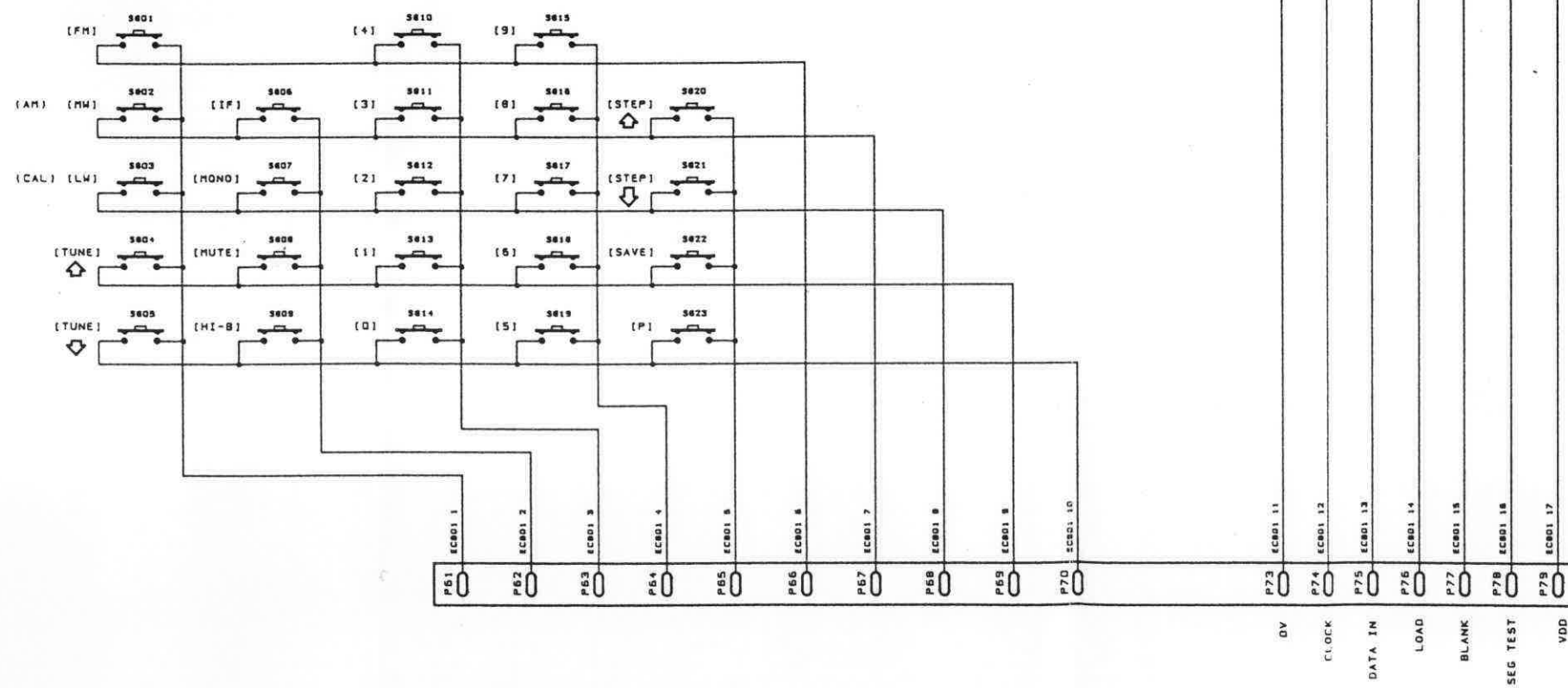
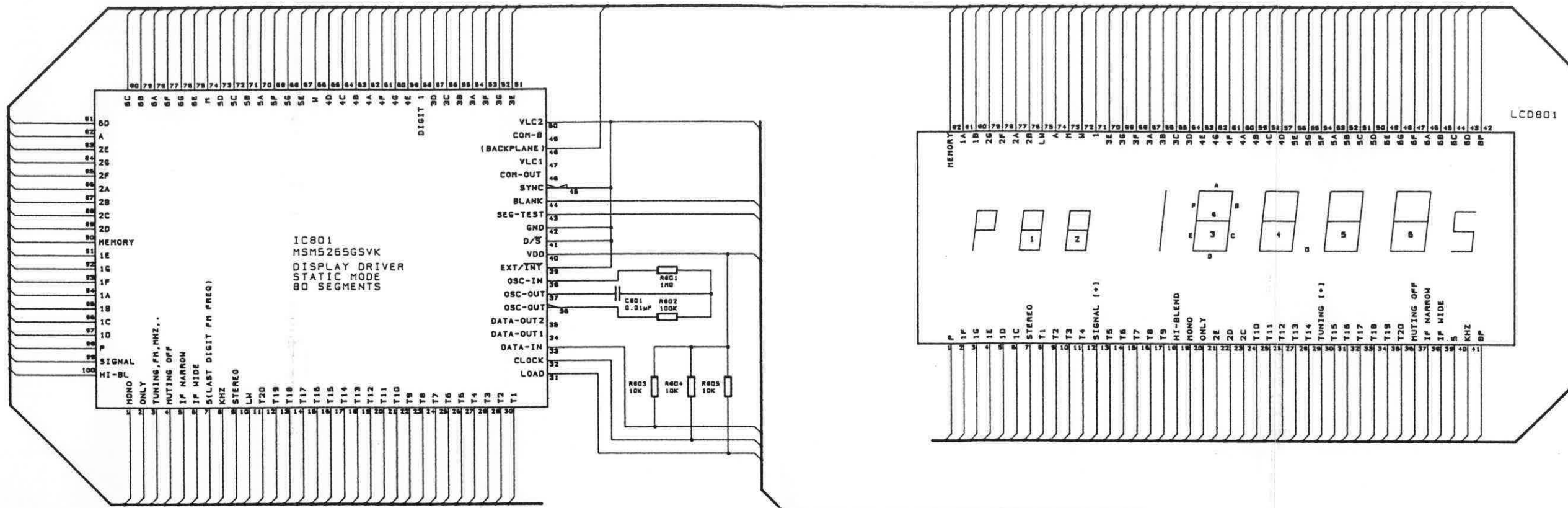
2	25K54 TO 25K54E	08-12-92
1	REV. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY:	TDS	DATE: 03-10-90
CHECK BY:		DATE:
APPRO BY:		DATE:
TITLE: AM RECEIVER		
MEDIUM AND LONG WAVE		
DRAWING NO: CST210-08		
SHEET 4 OF 11 SHEETS		
FILE NAME: C:\CAMSYS\WORK\CST210\B101\REC.DWG		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD.		



3	2SK544 TO 2SK544E R502/9 100R TO 4K7	08-12-92
2	RESISTOR R519 ADDED	12-07-92
1	REL. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY: TDSS		DATE: 03-10-90
CHCK BY:		DATE:
APPRD BY:		DATE:
TITLE: PLL FREQUENCY SYNTHESIZER AND LOOP FILTERS		
DRAWING NO: CST210-065		
SHEET 5 OF 11 SHEETS		
FILE NAME: \CADSTAR\CHORK\CST210\101PLL.CSD		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD. A3		



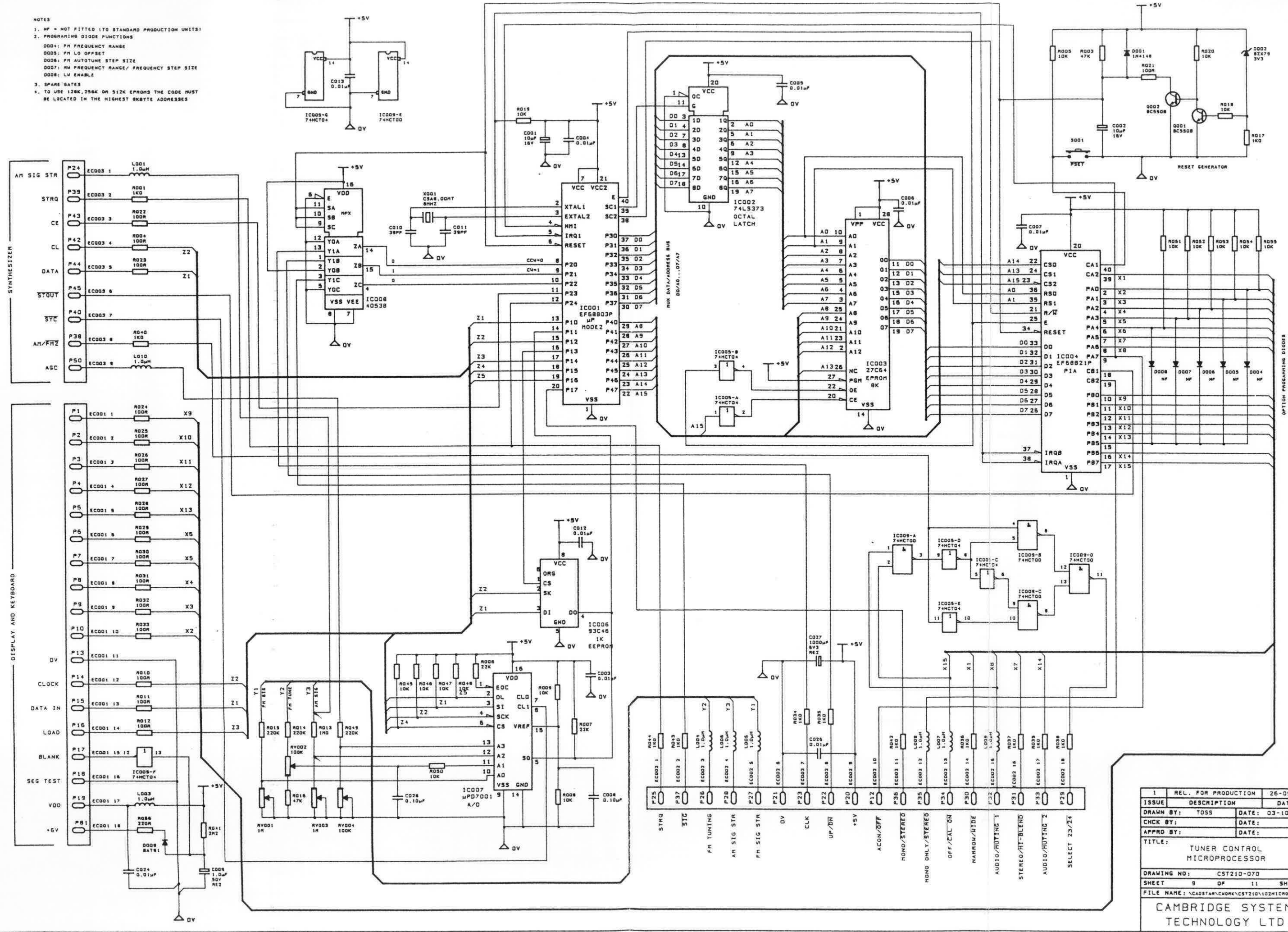
2	100V VERSION MODS	16-12-92
1	REL. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY:	TDSS	DATE: 03-10-90
CHK BY:		DATE:
APPRD BY:		DATE:
TITLE: POWER SUPPLIES		
DRAWING NO: CST210-066		
SHEET	6 OF 11	SHEETS
FILE NAME: \CADSTAR\CHORK\CST210\101SUPPLY.CSD		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD. A3		



CONNECTOR TO MOTHER PCB

1	REL. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY:	TOSS	DATE: 24-02-90
CHK BY:		DATE:
APPR BY:		DATE:
TITLE:		
LCD AND KEYBOARD SCHEMATIC		
DRAWING NO:	CST210-068	
SHEET	8	OF 11 SHEETS
FILE NAME: \CADSTAR\WORK\CST210\103LCDPP.CSD		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD. A2		

- NOTES
1. NP = NOT FITTED (TO STANDARD PRODUCTION UNITS)
 2. PROGRAMMING DIODE FUNCTIONS
 3. SPARE GATES
 4. TO USE 128K, 256K OR 512K EPROMS THE CODE MUST BE LOCATED IN THE HIGHEST 8KBYTE ADDRESSES



1	REL. FOR PRODUCTION	26-05-92
ISSUE	DESCRIPTION	DATE
DRAWN BY: TOSS	DATE: 03-10-90	
CHK BY:	DATE:	
APPR BY:	DATE:	
TITLE: TUNER CONTROL MICROPROCESSOR		
DRAWING NO: CST210-070		
SHEET 9 OF 11 SHEETS		
FILE NAME: \CAD57A\CHOKK\CST210\02MICRO.CSD		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD. A2		

Cambridge Systems Technology Ltd
Spitfire Close
Ermine Business Park
HUNTINGDON
Cambs PE18 6XY England

Telephone: (0480) 52521
International +44 480 52521

Fax: (0480) 52159
International +44 480 52159



16 December 1993



SERVICE NOTE

Audiolab 8000T (Model 210)

We have experienced some problems with inconsistent readings on the signal strength meter. The problem is caused by the rubber grommet strip between the PCB and the transformer support plate being partially conductive. This allows current to flow between the exposed solder pads.

If the above problem is experienced it can be remedied by reducing the length of the grommet strip and positioning as shown on the enclosed drawing. It should be positioned level with Q601 but must not touch the solder pad level with C607 (maximum length 50mm).

This modification only applies to PCB Issue 3.

Yours sincerely



Keith Usher
Technical Manager

Enc.

Registered in England

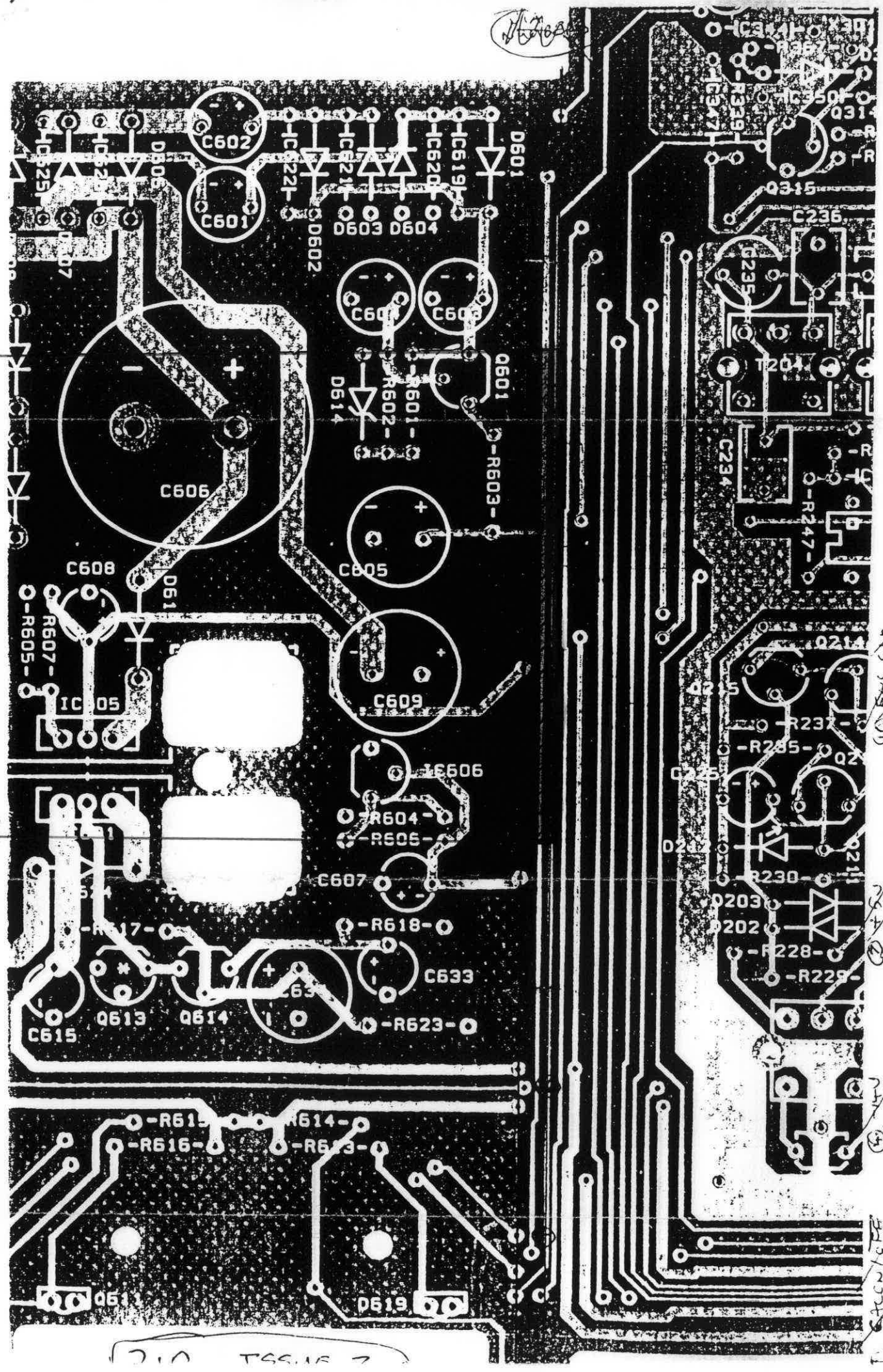
Registered Office:
Prince Albert House
20 King Street
Maidenhead Berks

Registered No 1695293

VAT No 395 7297 90

MAX = RUBBER STRIP, 50.0mm LONG, LINE END OF STRIP UP WITH Q601 AS SHOWN

Handwritten signature or initials at the top of the page.



Handwritten notes and markings on the right side of the PCB layout, including component identifiers like Q214, Q215, Q211, Q212, Q203, Q202, Q204, Q235, and Q315, along with other annotations.

Handwritten text at the bottom of the page, possibly a date or version number, including the characters '210' and 'TSS.16 7'.

Cambridge Systems Technology Ltd
Spitfire Close
Ermine Business Park
Huntingdon
Cambs
PE18 6XY

Telephone +44 (0)1480 52521
Fax +44 (0)1480 52159

8000T

In case of problem with the FM front-end in an Audiolab 8000T. Solution depends on S.No.

S.No.	Action	Software Ver.
210A01001 - 210A11199	Carefully replace Q701 and add R474 & C710 as per our instructions. No re-alignment required.	Various
210A12001 - 210A13094	Return tuner to CST for front-end update and re-alignment.	V2.6
210A13095 -	Replacement front-end available from CST. No re-alignment required.	V2.6

Registered in England

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20 King Street
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Registered No 1695293

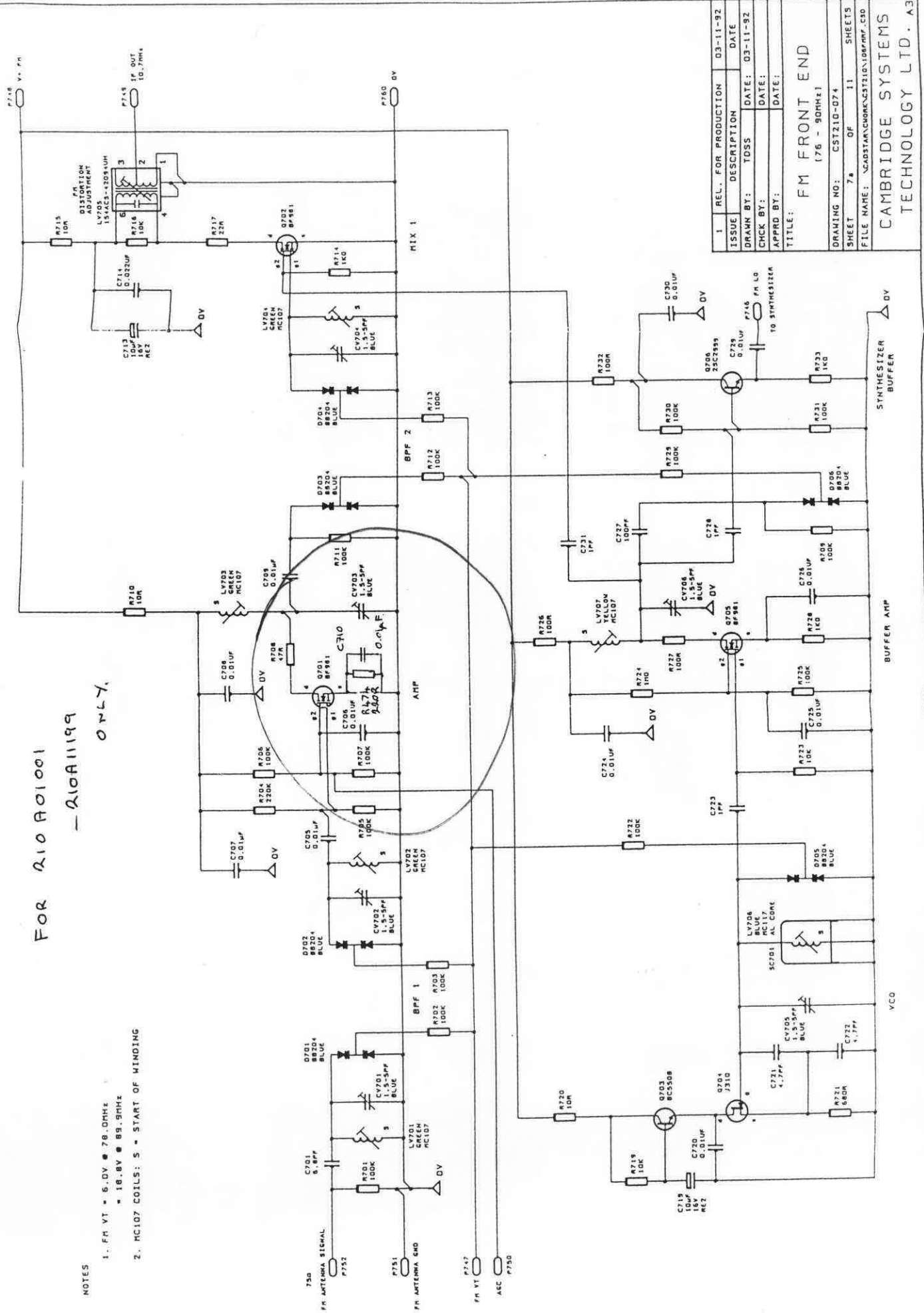
VAT No 395 7297 90

FOR 210A01001
- 210A1199

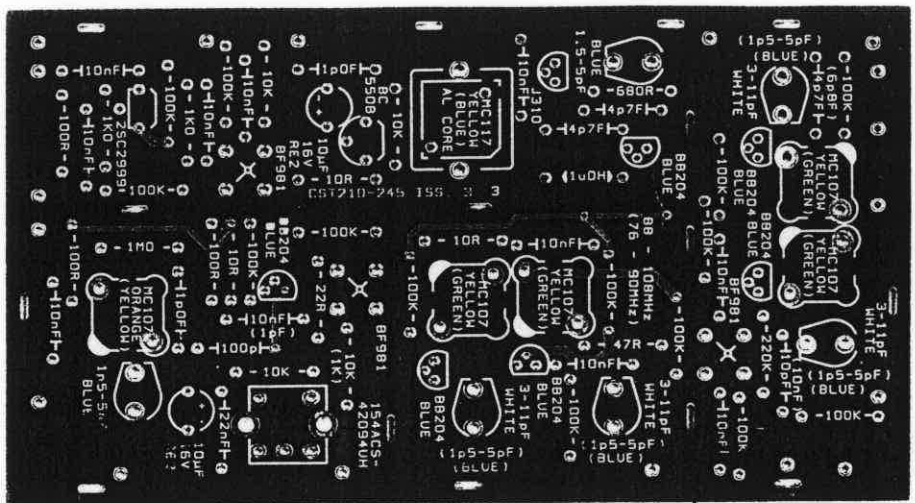
ONLY

NOTES

1. FM VT = 6.0V @ 76.0MHz
= 18.8V @ 89.9MHz
2. MC107 COILS: S = START OF WINDING



1	REL. FOR PRODUCTION	03-11-92
ISSUE	DESCRIPTION	DATE
DRAWN BY:	TDS	DATE: 03-11-92
CHECK BY:	DATE:	
APPROD BY:	DATE:	
TITLE: FM FRONT END		
(76 - 90MHz)		
DRAWING NO:	CST210-074	
SHEET 7#	OF 11	SHEETS
FILE NAME: \CAM3\A01000K\CST210\074.DWG		
CAMBRIDGE SYSTEMS TECHNOLOGY LTD. A3		



Q701
 REPLACE DEFECTIVE
 FET WITH NEW ONE

ADD
R474 220R
C710 0.01μF
CUT PCB TRACKS

