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Service
Service
Service

Product Service Group CE Audio

Service Information

CORRECTIONS TO THE SERVICE MANUAL

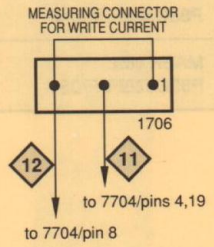
1. **Service test program** (page 25-26)
   Flow chart drawing and test-descriptions on pages 25 and 26 have been updated to produced situation. Additional information to various test-modes has been added.
   For corrected flow chart and descriptions see annex pages marked 25.a, 26.a and added page 26.1.

   The most important corrections are:
   Key-test : Correct key to enter the test is "MARK WRITE".
   Hole-test : The test can only be entered if tray is in opened position. To move tray outside execute tray-test, first.
   IR-test : RC5-Codes of TEXT and TIME have been exchanged.
   RC5-Code for TIME should read "11", RC5-Code for TEXT should read "122".

2. **Adjustment table** (page 28)
   Position number of potmeter for take-up torque should read 3280 instead of 3220.
   For corrected adjustment table see annex page marked 28.a which replaces the original page 28.

3. **Measuring points on Digital Board PCB5** (page 44)
   Position of red layer shifted in the printing process. Most measuring points can hardly be located.
   For corrected layout see annex page marked 44.a which replaces the original page 44.

4. **Measuring points on Read/Write Board PCB7** (page 50-54)



   Pinning of measuring connector 1706 has been stated wrong in the circuit diagram and component layout. Measuring points MP11 and MP12 on page 51 (circuit diagram) and page 54 (component layout) have to be corrected according to the left drawing.

5. **Partslist RED1-tape transport** (page 60)
   Service codenumber correction:
   Item 1023 capstan motor reads 4822 361 21646 instead of 4822 361 21506.

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CHANGES IN COURSE OF PRODUCTION

1. **Read/Write Board PCB7** (page 50-54)
Component layout changed into production stage "5". See annex pages marked 54.1 and 54.2. Component layout as published on page 53 and 54 of the service manual is valid for production stages "3" and "4".
The different production stages can be identified by a twelve-figure number, located at the lower right corner of the Read/Write printed circuit board (component-side view):
"3103 303 3241.**3**" indicates production stage 3,
"3103 303 3241.**4**" indicates production stage 4,
"3103 303 3241.**5**" indicates production stage 5.

2. **Replacement of Loading assembly "LDU1000" (4822 691 20833)**
In course of production the temperature stability of the speed control circuit has been improved.
Following components have been changed:
– Main board (PCB3) : R3263 changed from 12k to 15k
– DCC-indication board (PCB6) : NTC-resistor in series to capstan motor changed to diode/resistor section parallel capstan motor (service manual shows already the new circuit).

When replacing the loading assembly by an earlier/later version only the built-in main board must be matched to the LDU1000 delivered. The DCC-indication board needs not to be adapted.

Replacement procedure:
– Replacing LDU1000 WT00 or WT01 by a WT02-version : Change R3263 from 12k to 15k !
Replacing LDU1000 WT02 by a WT00 or WT01-version : Change R3263 from 15k to 12k !
– Adjust speed control as described on page 28 of service manual.
– Check take up torque and wow&flutter (for limits see page 28 of service manual).
– Adjust Dolby level (main board).

3. **Software versions of front- and main-µP**
The tables below give a survey of various software versions and introduction dates.

70DCC380	**Front-µP** (pos.7401)	**Main-µP** (pos.7335)
WK 9302	OTP v77 TMP87PM70F [1]	OTP v77 P87C528EBPN [1]
WK 9306	OTP v74 TMP87PM70F [1]	OTP v74 P87C528EBPN [1]
WK 9309	OTP v77 TMP87PM70F [1]	OTP v77 P87C528EBPN [1]
WK 9310	OTP v74 TMP87PM70F [1]	OTP v74 P87C528EBPN [1]
WK 9311	OTP v74 TMP87PM70F [1]	OTP v72 P87C528EBPN [1]
WK 9326	OTP v74 TMP87PM70F [1]	MASK v72 P83C528FBP/045
WK 9331	MASK v67 TMP87CM70AF-6128	MASK v69 P83C528FBP/054

70DCC300	**Front-µP** (pos.7401)	**Main-µP** (pos.7335)
WK 9302	OTP v77 TMP87PM70F [1]	OTP v77 P87C528EBPN [1]
WK 9303	OTP v77 TMP87PM70F [1]	OTP v75 P87C528EBPN [1]
WK 9311	OTP v77 TMP87PM70F [1]	OTP v72 P87C528EBPN [1]
WK 9311	MASK v77 TMP87CM70AF-6089	OTP v72 P87C528EBPN [1]
WK 9321	MASK v77 TMP87CM70AF-6089	MASK v72 P83C528FBP/045
WK 9331	MASK V67 TMP87CM70AF-6128	MASK v69 P83C528FBP/054

70DCC600	**Front-µP** (pos.7401)	**Main-µP** (pos.7335)
WK 9301	OTP v77 TMP87PM70F	OTP v76 P87C528EBPN [2]
WK 9303	OTP v77 TMP87PM70F	OTP v75 P87C528EBPN [3]
WK 9312	OTP v77 TMP87PM70F	OTP v72 P87C528EBPN [4]
WK 9320	OTP v77 TMP87PM70F	OTP v75 P87C528EBPN [3]
WK 9322	OTP v77 TMP87PM70F	OTP v72 P87C528EBPN [4]

[1] OTP-versions are marked directly on the IC
[2] OTP marked "5.1"
[3] OTP marked "5.2"
[4] OTP marked "5.2A"

Note: The software stages are numbered in decreasing order.
That means: The lower the number, the higher the software stage.

Because of compatibility problems the µPs cannot be mixed-up arbitrary.
In case of a defective µP always exchange both (front and main-µP) by their latest releases:

– Front-µP	vervion 67	4822 209 32528	TMP87CM70AF-6128
also available on complete mounted front board			
for 70DCC300		4822 214 52176	
for 70DCC380		4822 214 52177	
for 70DCC600		4822 214 52178	
– Main-µP	vervion 69	4822 209 32974	P83C528FBP/054

ADDITIONAL INFORMATION

1. **Functional diagrams**
Functional diagrams for main-, digital- and read/write-board have been added. See annex, added pages 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 14.7, 14.8, 14.9 and 14.10.

SERVICE HINTS

1. **Symptom** : *The set can´t find the use-again marker on a customer recorded DCC (endless loops during append).*

Cause : Crosstalk from WDATA to INAUX.

Cure : Cut off minus lead of ELCAP 2711 on Read/Write board.
Solder wire from minus lead of C2711 to pin11 of IC7703 (read amplifier TDA1317).

Remarks : The phenomenon is hardly reproducible and occurs only on printed circuit boards with production stage "4".
The different production stages can be identified by a twelve-figure number, located at the lower right corner of the Read/Write board (component-side view). "3103 303 3241.**4**" indicates production stage 4.

2. **Symptom** : *Recording on DCC via digital input is not possible.*

Cause : When recording from an external digital source, the system clock (256fs) has to be reconstructed from the digital EBU-signal. The accuracy of this frequency depends on the timing reference of the source player. In case this source is using a ceramic resonator with tolerances of ±0,5% the DCC-system has difficulties to follow this signal. The DCC-system can only compensate deviations of ±0,2% (length of the InterFrameGap "IFG"). That´s why the DCC-set will not start the recording. The message "CHECK DIGITAL IN" is shown on the display.

Cure : Consult service information about resonator circuit of concerning source set.

3. **Symptom** : *Transistor 7355 (BC817/40) of solenoid circuit defective.*

Cure : Replace defective transistor (4822 130 42615).
Check soldering of diode 6308 (BAS16) on main board.
Check cooling of transistor 7205 (BD434) on main board.

Remarks : Insufficient pressure of transistor clips (item 512 in service manual 70DCC300) will cause an increasing supply voltage of the play magnet (voltage on solenoid ≥ 15V), which can destroy transistor 7355.

4. **Symptom** : *Poor loading function – Slider opener (pos. 216-219 of exploded view) lands on top of cassette.*

Cause : Shutter (pos. 552) out of form. Left side touches either on bracket (pos. 551) or controlling lever (pos. 556).

Cure : Bend left side of shutter so, that there is no contact to other parts (min. distance between pos. 551 and pos. 552 ≥ 0,1mm).

Remarks : Loading assembly, marked with a red cross on the top of bracket 551 has already been checked by the factory.

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SOFTWARE BUGS 70DCC300 / 70DCC380 / 70DCC600

FUNCTION	SYMPTOM	SOLVED IN µP-VERSION
PLAYBACK	*The output level decreases from 2,2V to 1,5V after jump from a track with 44,1kHz sampling frequency to a track with 32kHz sampling frequency.*	F67 / M69
RECORD	*If the set detects "quick reverse" while writing a marker the software hangs up.*	F67 / M69
	Wrong start positions of tracks and old recordings are audible during pause (occurs only after a few times append). 1)	F67 / M69
NEXT / PREV	*After next / previous the first 0,5 seconds of the selected track are missing.*	F77 / M72
	Next mode doesn´t work at the end of tape side A, previous mode doesn´t work at the beginning of side B (occurs only if head position is within leader tape).	F67 / M69
	Set changes to side B in next mode arbitrarily. If two start markers are set very close to each other, they are detected as a reverse marker.	F67 / M69
RENUMBER	*Wrong track numbering after renumber* (e.g. tape with 2 tracks → erase 2nd start marker → start RENUMBER → start APPEND → track no. is "3" instead of "2").	F67 / M69
	Renumer stops on side B after detection of a reverse marker (only if area in front of the first start marker on side B is an user tape).	F67 / M69
DISPLAY	*Incorrect display of time after append.* 1)	F67 / M69
	After loading an ACC the counter does not function (sometimes). The counter info remains "0000".	F67 / M69
	After message "TAPE FULL" the display is erased incorrectly ("...ULL" remains).	F67 / M69
	After message "TRACK REPEAT" the display info is not correct (the display shows e.g. ">>" instead of "PLAY").	F67 / M69

1) These errors are caused by inaccurate headpositioning when rewriting the AUXILIARY-INFORMATION. Upgraded software will only improve these functions for new recordings, but not solve problems with existing customer recorded tapes.

COMPATIBILITY PROBLEMS TO OTHER DCC-RECORDER

1. Symptom : A recording via ANALOGUE IN is made on a 70DCC900.
Copying the "master tape" from 70DCC900 to 70DCC300 / 70DCC380 / 70DCC600 is correct.
Copying the same master tape from 70DCC300 / 70DCC380 / 70DCC600 to 70DCC900 is prohibited.
If the first recording is made on the 70DCC300 / 70DCC380 / 70DCC600 the master tape can be copied in both directions.

Cause : The sysinfo-header of the 70DCC900 master tape (where the SCMS-information is located) is misinterpreted by the 70DCC300 / 70DCC380 / 70DCC600 software. Due to this misinterpretation the copyright status on the digital output toggles between "prohibit coded" and not.

Cure : Upgrade both µPs (front- and main-µP) to their latest releases:
– Front-µP vervion 67 4822 209 32528 TMP87CM70AF-6128
also available on complete mounted front board
for 70DCC300 4822 214 52176
for 70DCC380 4822 214 52177
for 70DCC600 4822 214 52178

– Main-µP version 69 4822 209 32974 P83C528FBP/054

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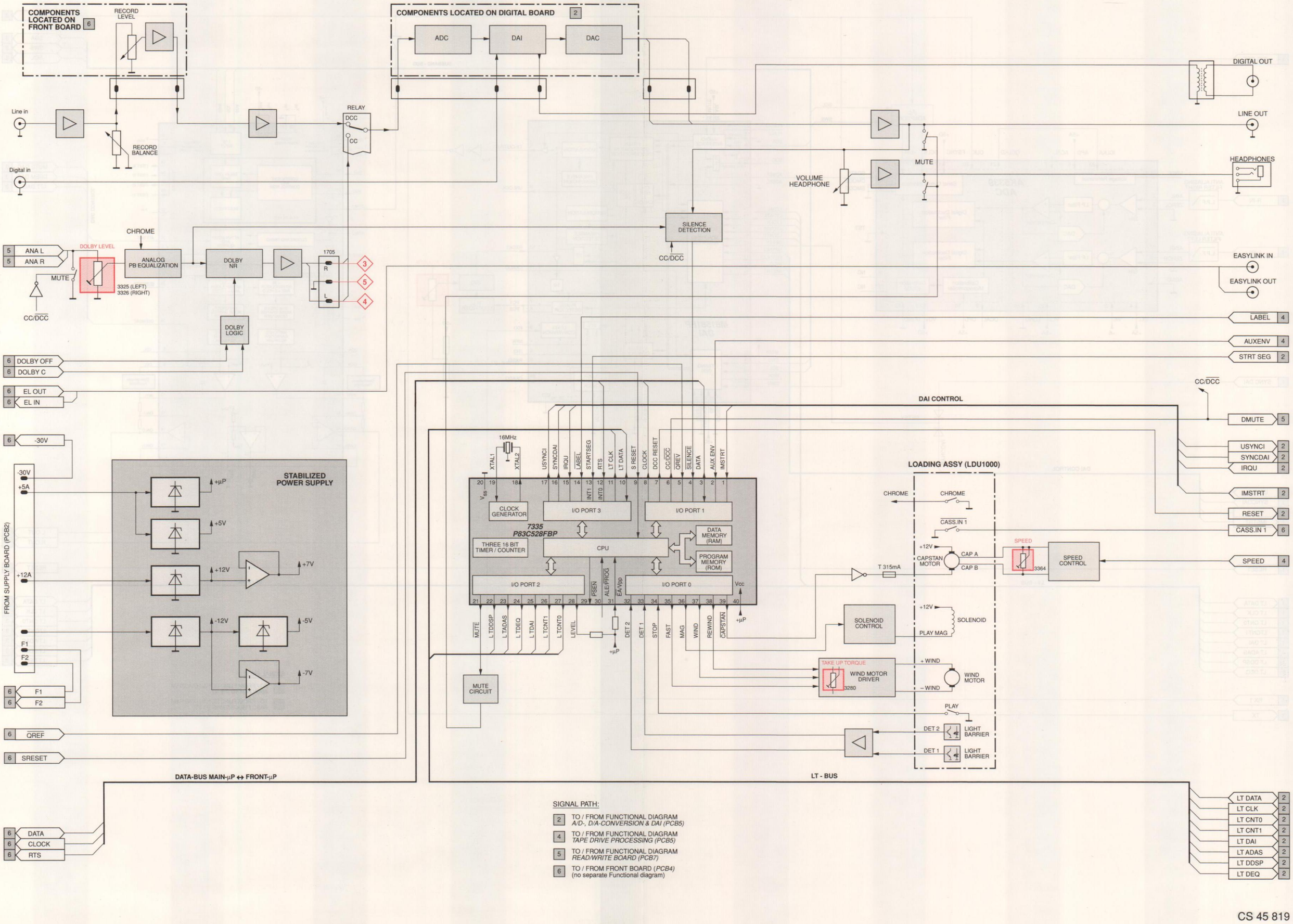
1 FUNCTIONAL DIAGRAM *MAIN BOARD (PCB3)*



SIGNAL PATH:

- 2 TO / FROM FUNCTIONAL DIAGRAM *A/D-, D/A-CONVERSION & DAI (PCB5)*
- 4 TO / FROM FUNCTIONAL DIAGRAM *TAPE DRIVE PROCESSING (PCB5)*
- 5 TO / FROM FUNCTIONAL DIAGRAM *READ/WRITE BOARD (PCB7)*
- 6 TO / FROM FRONT BOARD *(PCB4)* (no separate Functional diagram)

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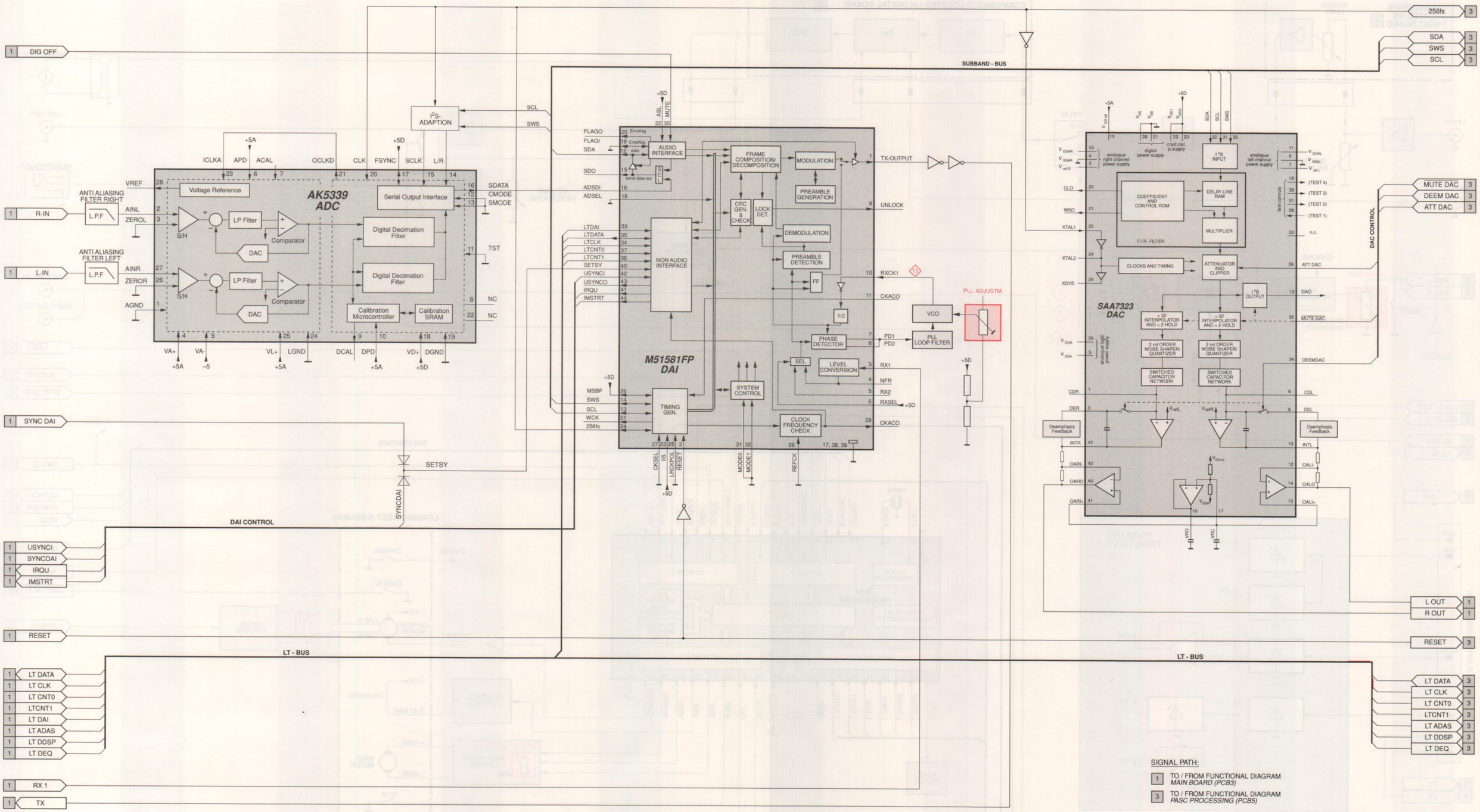
2 FUNCTIONAL DIAGRAM *DIGITAL BOARD (PCB5) – A/D-, D/A-Conversion & DAI*



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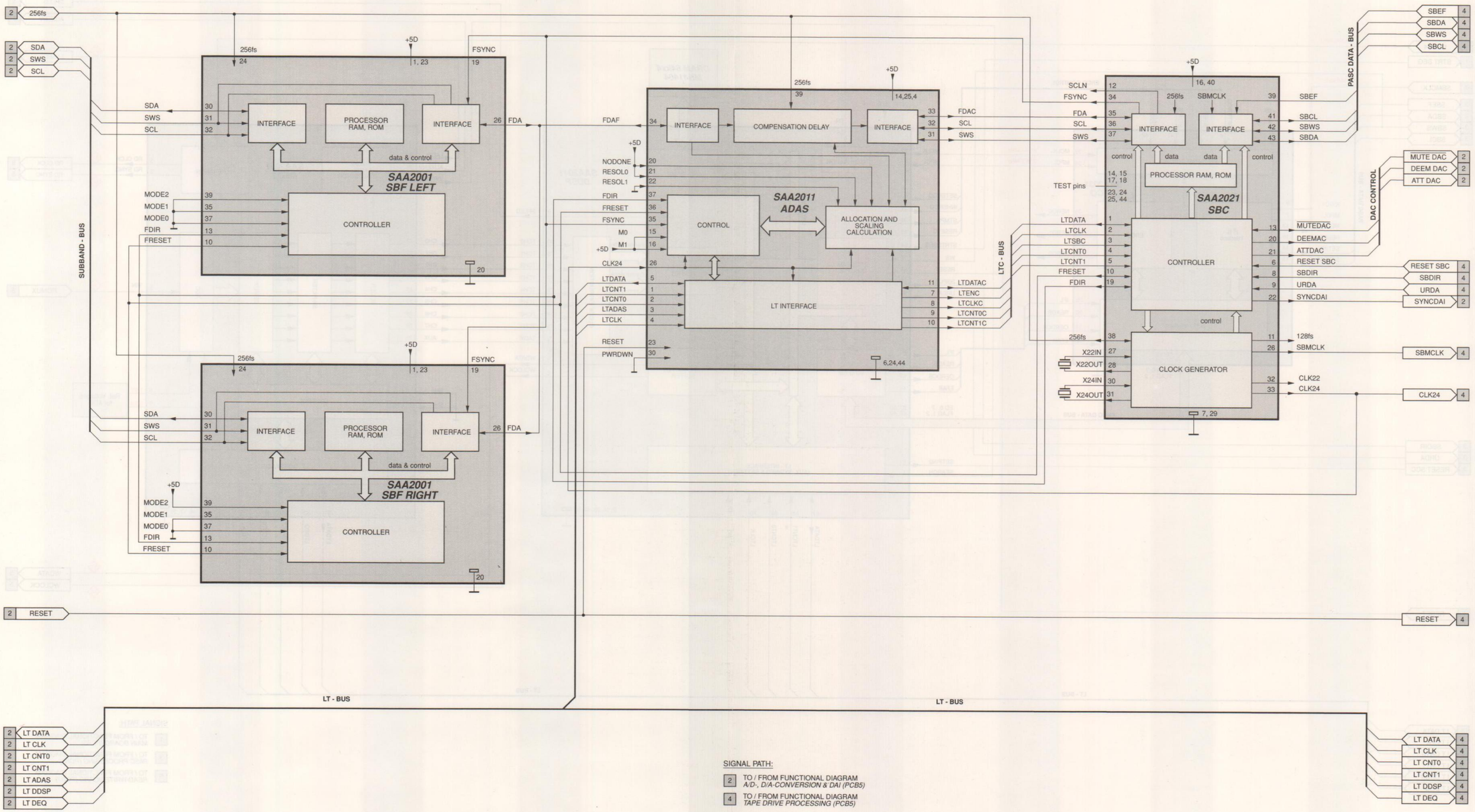
3 FUNCTIONAL DIAGRAM *DIGITAL BOARD (PCB5) – PASC PROCESSING*



SIGNAL PATH:

2 TO / FROM FUNCTIONAL DIAGRAM *A/D-, D/A-CONVERSION & DAI (PCB5)*

4 TO / FROM FUNCTIONAL DIAGRAM *TAPE DRIVE PROCESSING (PCB5)*

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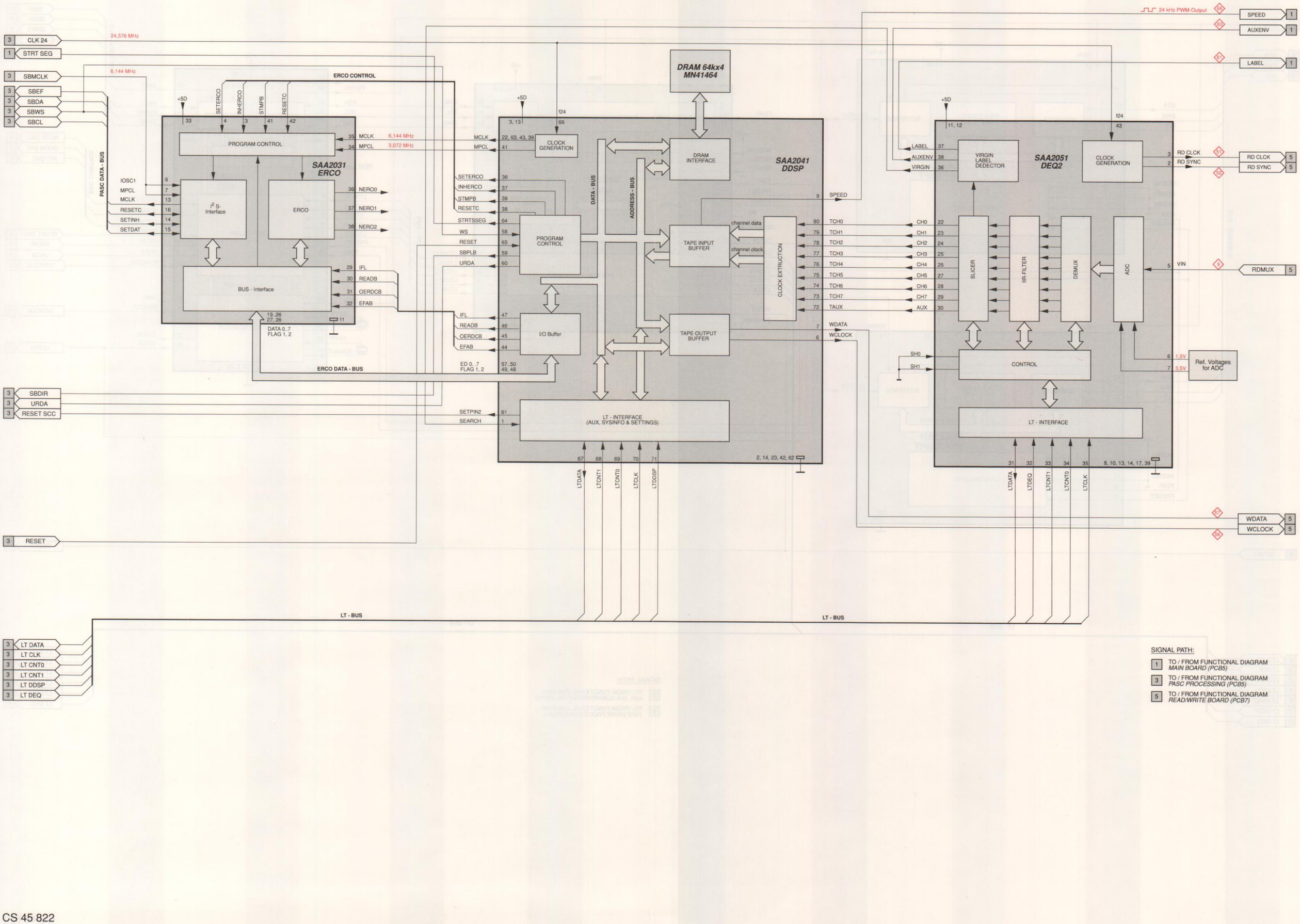
4 FUNCTIONAL DIAGRAM *DIGITAL BOARD (PCB5) – TAPE DRIVE PROCESSING*



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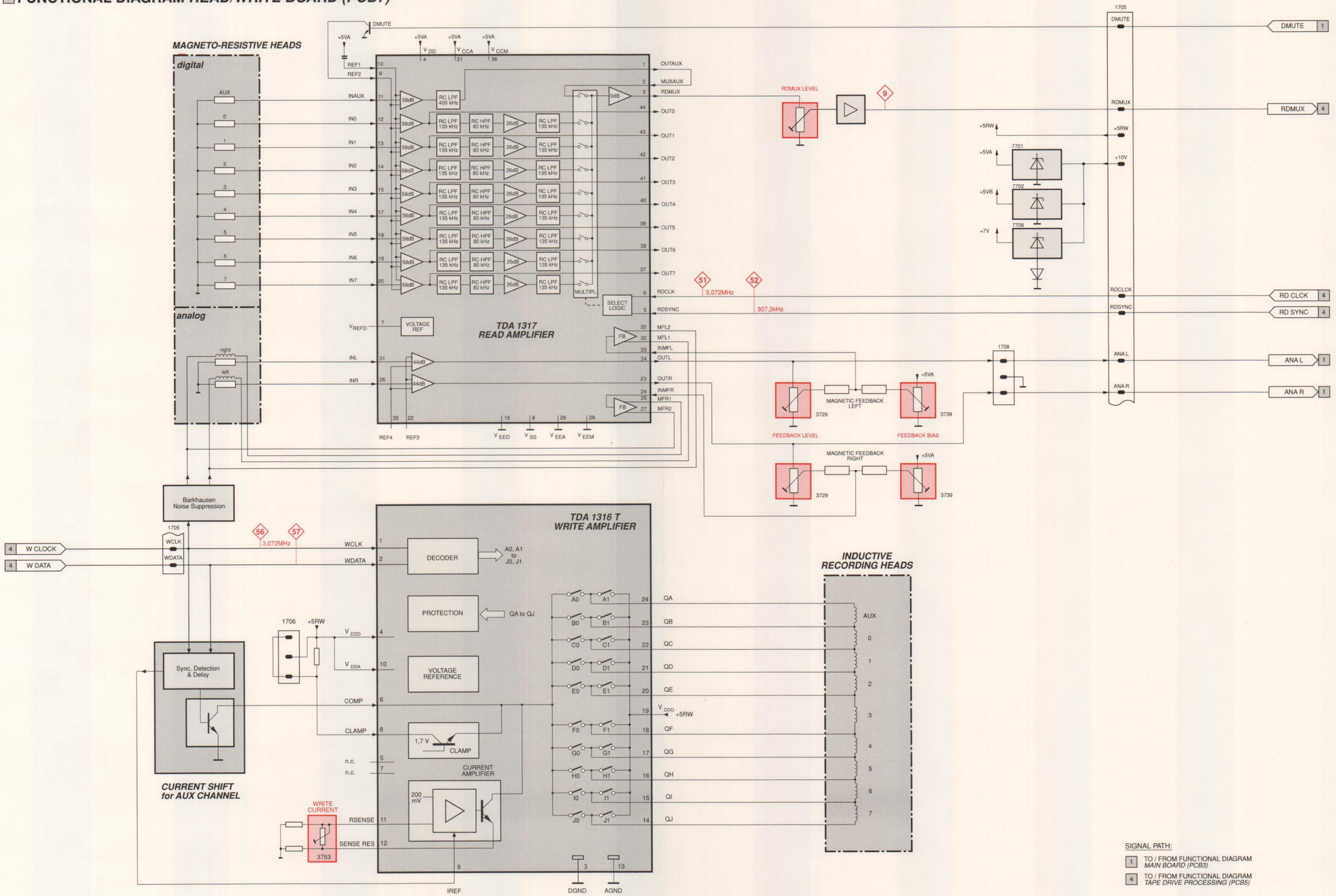
5 FUNCTIONAL DIAGRAM *READ/WRITE BOARD (PCB7)*



SIGNAL PATH:

1 TO / FROM FUNCTIONAL DIAGRAM *MAIN BOARD (PCB3)*

4 TO / FROM FUNCTIONAL DIAGRAM *TAPE DRIVE PROCESSING (PCB5)*

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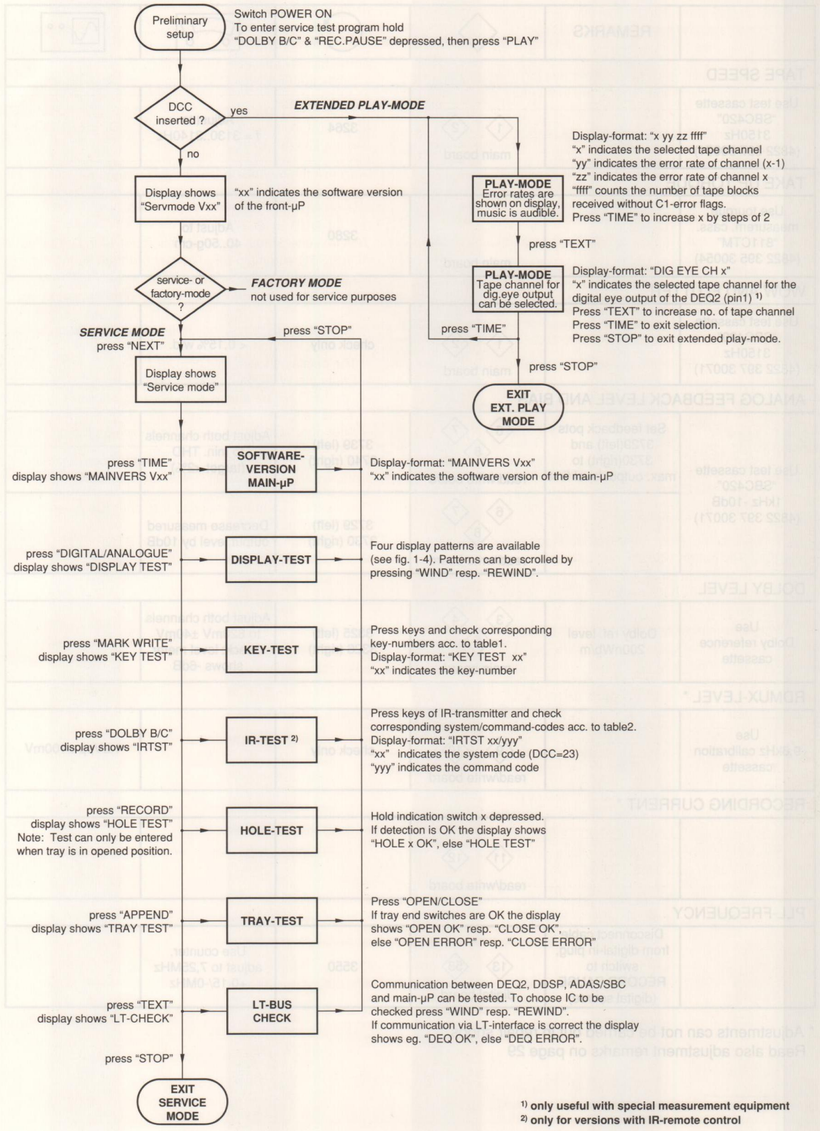
SERVICE TEST PROGRAM - FLOW CHART



1) only useful with special measurement equipment
2) only for versions with IR-remote control

SERVICE TEST PROGRAM – DESCRIPTIONS

1. GENERAL

The test program is equipped with a service mode, a factory mode and an extended playback-mode.
- The service mode includes tests for display, detection of hole switches IR-remote and keys.
- The factory mode is a special test program, which is used in the production process of the front board, but not useful for service purposes.
- In the extended playback-mode the error rates (C1 error flags from DDSP) are shown on the display. Also the tape channel for the digital eye output of the DEQ2 (pin1) can be selected.

2. EXTENDED PLAYMODE

- Turn POWER ON.
- Insert a DCC
- Hold DOLBY B/C & REC.PAUSE buttons depressed, then press PLAY.

The set is now in the extended playmode, music will be audible. The C1-error flags, detected by the ERCO, are read out via the LT-interface of the DDSP.

- The display shows "x yy zz ffff".
  "x" indicates the selected tape channel
  "yy" indicates the error rate of channel (x-1) in %.
  "zz" indicates the error rate of channel x in %.
  "ffff" counts the number of tape blocks received without C1-error flags. The counter will be resetted with every C1-error.

> Because of software reasons the error rate per channel can only be indicated in steps of 5%. In normal operating sets and excellent tape material the error rates will (due to the rough resolution) always be "0".
> A much better indication for the quality of data gives the tape block counter ("ffff"). If the count is resetted just every minute the signal processing path should be OK. In case of too high error rates (frequent resets) check the signalflow DCC head → read amplifier → DEQ → DDSP (especially RDMUX).

- Press the TIME button to increase x by steps of 2.
- To exit the extended playmode press the STOP button.

3. SERVICE MODE

- Turn POWER ON
- Remove cassette from the cassette compartment.
- Hold DOLBY B/C & REC.PAUSE buttons depressed, then press PLAY.
- The display shows "SERVMODE Vxx".
  "xx" indicates the software version of the front-µP.
- To enter servicemode press the NEXT button.
- The display shows "SERVICE MODE".

The available tests can now be entered by pressing the corresp. buttons (see also flow chart on previous page).

- To exit the service mode press the STOP button.

3.1. DISPLAY SOFTWARE VERSION OF MAIN-µP

- To display the software version of the main-µP enter service mode and press the TIME button.
- The display shows "MAINVERS Vxx".
  "xx" indicates the software version.
- To exit this test press the STOP button.

3.2. DISPLAY TEST

- To start the display test enter service mode and press the DIGITAL/ANALOGUE button.
- The display shows "DISPLAY TEST".

> Four display test pattern are available (see fig. 1-4). The patterns can be scrolled forwards resp. backwards by pressing the WIND resp. REWIND button.

- To exit the display test press the STOP button.

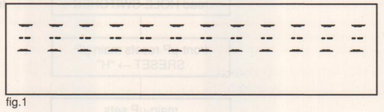


fig.1

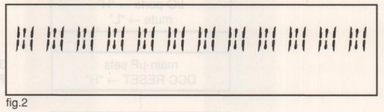


fig.2

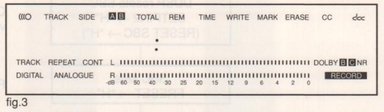


fig.3

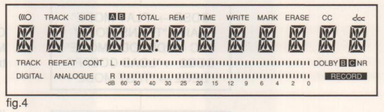


fig.4

3.3. KEY TEST

- To start the key test enter service mode and press the MARK WRITE button.
- The display shows "KEY TEST xx".
- "xx" indicates the key-number.

> Press keys and check their corresponding key-numbers according to table 1.

KEY	KEY NUMBER	KEY	KEY NUMBER
RENUMBER	01	RECORD	27
OPEN/CLOSE	03	DOLBY B/C	33
WRITE MARK	05	BACKWARD	35
PREVIOUS	09	CD SYNCHRO	37
APPEND	11	REPEAT	39
DIGITAL/ANALOGUE	17	SIDE A/B	41
FORWARD	19	RECORD/PAUSE	43
ERASE MARK	21	TEXT	65
PLAY	23	TIME	67
NEXT	25	RESET	73

table1

- To exit the key test press the STOP button.

3.4. IR-TEST

- To start the IR-test enter service mode and press the DOLDY B/C button.
- The display shows "IRTST xx/yyy".
  "xx" indicates the system code (DCC=23)
  "yyy" indicates the command code

> Press keys and check their corresponding system/command code according to table 2.

SYSTEM-CODE 23 (DCC)			
KEY	COMMAND-CODE	KEY	COMMAND-CODE
0	00	PREVIOUS	33
1	01	RECORD MUTE	42
2	02	OPEN/CLOSE	45
3	03	SIDE A/B	47
4	04	RECORD PAUSE	48
5	05	RESET	49
6	06	BACKWARD	50
7	07	FORWARD	52
8	08	PLAY	53
9	09	STOP	54
TIME	11	RECORD	55
STAND BY	12	MARK WRITE	114
REPEAT	28	APPEND	117
NEXT	32	TEXT	122

table 2

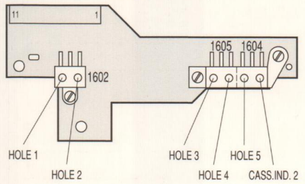
- To exit the IR-test press the STOP button.

3.5. HOLE TEST

Note: The hole test can only be entered when the tray is in opened position. To move tray outside execute tray test, first.

- To start the hole test enter service mode and press the RECORD button.
- The display shows "HOLE TEST". Hold indication switch x depressed and check display.

DCC-INDICATION BOARD (PCB 6)



> If detection of holes is OK the display shows e.g. "HOLE 1 OK", else "HOLE TEST".

- To exit the hole test press the STOP button.

3.6. TRAY TEST

The tray test is mainly intended to check the end stop switches 1436/1437, located on the tray indication board (PCB 0, page 57).
- To start the tray test enter service mode and press the APPEND button.
- The display shows "TRAY TEST".
- Press the OPEN/CLOSE button.

> If tray end stop switches are OK the display shows "OPEN OK" resp. "CLOSE OK", else "OPEN ERROR" resp. "CLOSE ERROR".

- To exit the tray test press the STOP button.

3.7. LT-BUS CHECK

This test checks the communication between DEQ2, DDSP, ADAS/SBC and main-µP. The test program sends settings via the LT-Bus to the selected IC, and checks if these settings have been received / can be read out correctly.

- To start the LT-bus check enter service mode and press the TEXT-button.
- The display shows "LT-CHECK"
- Press the WIND button.
- The DEQ will be checked, the display shows "DEQ CHECK".
- After approx. 1sec. the result is shown on the display.

> If the communication via LT-interface is correct the display shows "DEQ OK", else "DEQ ERROR".

- To test the communication to the other ICs press the WIND resp. REWIND button.
- To exit the LT-bus check press the STOP button.

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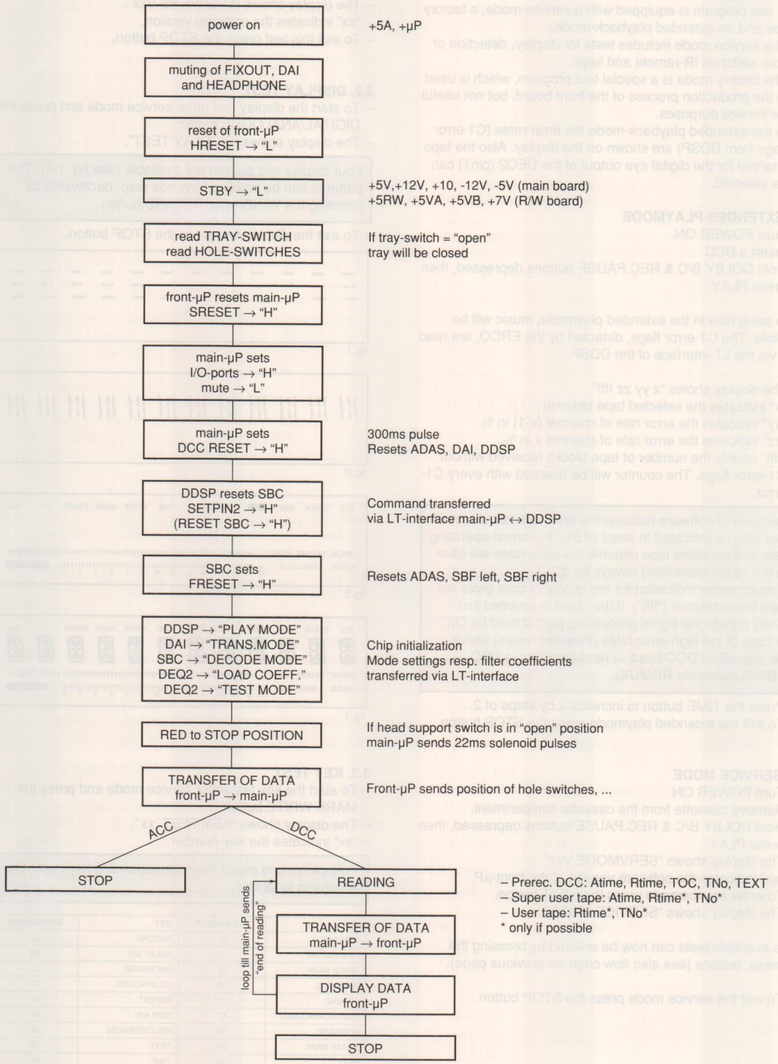
ENGINEERS REMARKS

START-UP PROCEDURE



ADJUSTMENT TABLE

	REMARKS	◇	↻	📟	∿
TAPE SPEED					
Use test cassette "SBC420" 3150Hz (4822 397 30071)		◇1 ◇2 main board	3264	Adjust to f = 3130..3140Hz	
TAKE UP TORQUE					
Use tourque measurem. cass. "811CTM" (4822 395 30054)		main board	3280	Adjust to 40..50g-cm	
WOW AND FLUTTER					
Use test cassette "SBC420" 3150Hz (4822 397 30071)		◇1 ◇2 main board	check only	< 0,15% wtd.	
ANALOG FEEDBACK LEVEL AND BIAS					
Use test cassette "SBC420" 1kHz -10dB (4822 397 30071)	Set feedback pots 3729(left) and 3730(right) to max. output level first	◇6 ◇7 ◇8 read/write board	3739 (left) 3740 (right)	Adjust both channels to min. THD (target <2%)	
		◇6 ◇7 ◇8 read/write board	3729 (left) 3730 (right)	Decrease measured output level by 10dB	
DOLBY LEVEL					
Use Dolby reference cassette	Dolby ref. level 200nWb/m	◇3 ◇4 ◇5 main board	3325 (left) 3326 (right)	Adjust both channels to 620mV ±40mV Check: level meter shows -6dB	
RDMUX-LEVEL *					
Use 9,6kHz calibration cassette		◇9 ◇10 read/write board	check only		1,2Vpp ±100mV
RECORDING CURRENT *					
		◇11 ◇12 read/write board			
PLL-FREQUENCY					
	Disconnect cable from digital-in plug, switch to RECORD PAUSE (digital source)	◇13 ◇58 digital board	3550	Use counter, adjust to 7,25MHz +0,15/-0MHz	

* Adjustments can not be carried out in repair shops.
Read also adjustment remarks on page 29

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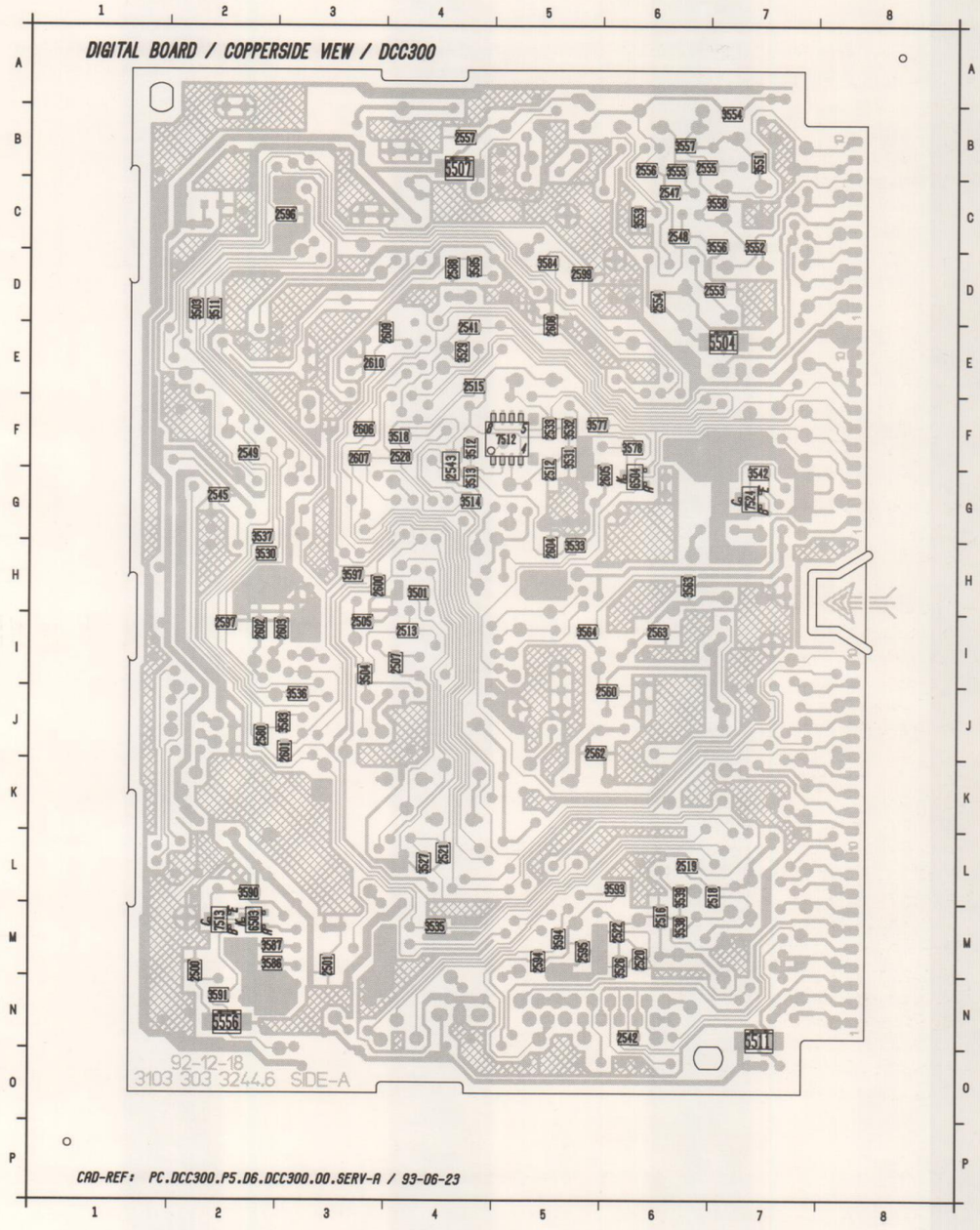
2500 M2
2501 M3
2505 I3
2507 I4
2512 G5
2513 I4
2515 E4
2516 M6
2518 L7
2519 L6
2520 M6
2521 L4
2522 M6
2528 F4
2533 F5
2541 E4
2542 N6
2543 F4
2545 G2
2547 C6
2548 C6
2549 F2
2553 D7
2554 D6
2555 B6
2556 B6
2557 B4
2560 J6
2562 J5
2563 I6
2580 J2
2588 D4
2594 M5
2595 M5
2596 C3
2597 I2
2599 D5
2600 H3
2601 J3
2602 I2
2603 I3
2604 H5
2605 G6
2606 F3
2607 F3
2608 E5
2609 E3
2610 E3
3501 H4
3503 D2
3504 I3
3511 D2
3512 F4
3513 G4
3514 G4
3518 F4
3526 M6
3527 L4
3529 E4
3530 H2
3531 F5
3532 F5
3533 H5
3535 M4
3536 J3
3537 G2
3538 M6
3539 L6
3542 G7
3551 B7
3552 C7
3553 C6
3554 B7
3555 B6
3556 C7
3557 B6
3558 C7
3563 H6
3564 I5
3577 F5
3578 F6
3583 J3
3584 D5
3585 D4
3586 M2
3587 M2
3590 L2
3591 N2
3593 L6
3594 M5
3597 H3
5504 E7
5507 B4
5511 N7
5556 N2
6503 M2
6504 G6
7512 F5
7513 M2
7524 G7



1501 C1
1502 F1
1503 J1
1504 M1
1505 N3
2502 K8
2503 B7
2504 B6
2506 J6
2508 K5
2509 K6
2510 J5
2511 K5
2514 E5
2517 M3
2523 D6
2524 D5
2525 F7
2526 H7
2527 J6
2529 F4
2530 M3
2531 H5
2532 G4
2534 E4
2535 M2
2536 L2
2537 K2
2538 D6
2539 D5
2540 E2
2544 L7
2546 F4
2550 K4
2551 B2
2552 C2
2558 D3
2559 B4
2561 J5
2564 H2
2565 I3
2566 I3
2567 J3
2568 I3
2569 J3
2570 H3
2571 K3
2572 H2
2573 K3
2574 H3
2575 H2
2576 G3
2577 J3
2578 H3
2579 H4
2581 C2
2582 D2
2583 D2
2584 D3
2585 B3
2586 B4
2587 B4
2589 J4
2590 K4
2591 J2
2592 N5
2593 N5
2598 E7
3502 J6
3505 J6
3506 J6
3507 J6
3508 J5
3509 J5
3510 E7
3515 F6
3516 F5
3517 F5
3519 G6
3520 G6
3521 M5
3522 M3
3523 M3
3524 I4
3525 L3
3528 L5
3534 F6
3540 K2
3541 L2
3543 D5
3544 D6
3545 F4
3546 G4
3547 G4
3548 F4
3549 F4
3550 F4
3559 F5
3560 F5
3561 G5
3562 K4
3565 K3
3566 H3
3567 K3
3568 H3
3569 K3
3570 H3
3571 K3
3572 G3
3573 K3
3574 H3
3575 K3
3576 H3
3579 F6
3580 C6
3581 D7
3582 E6
3588 N8
3589 N7
3592 N5
3595 N5
5501 M3
5502 E5
5503 B2
5505 E2
5508 D5
5509 F5
5510 N5
5531 G2
5532 G3
5550 K5
5551 K5
5555 J4
6501 L5
6502 L3
7500 F4
7501 E5
7502 G7
7503 I5
7504 B5
7505 C7
7506 M6
7507 M6
7508 L4
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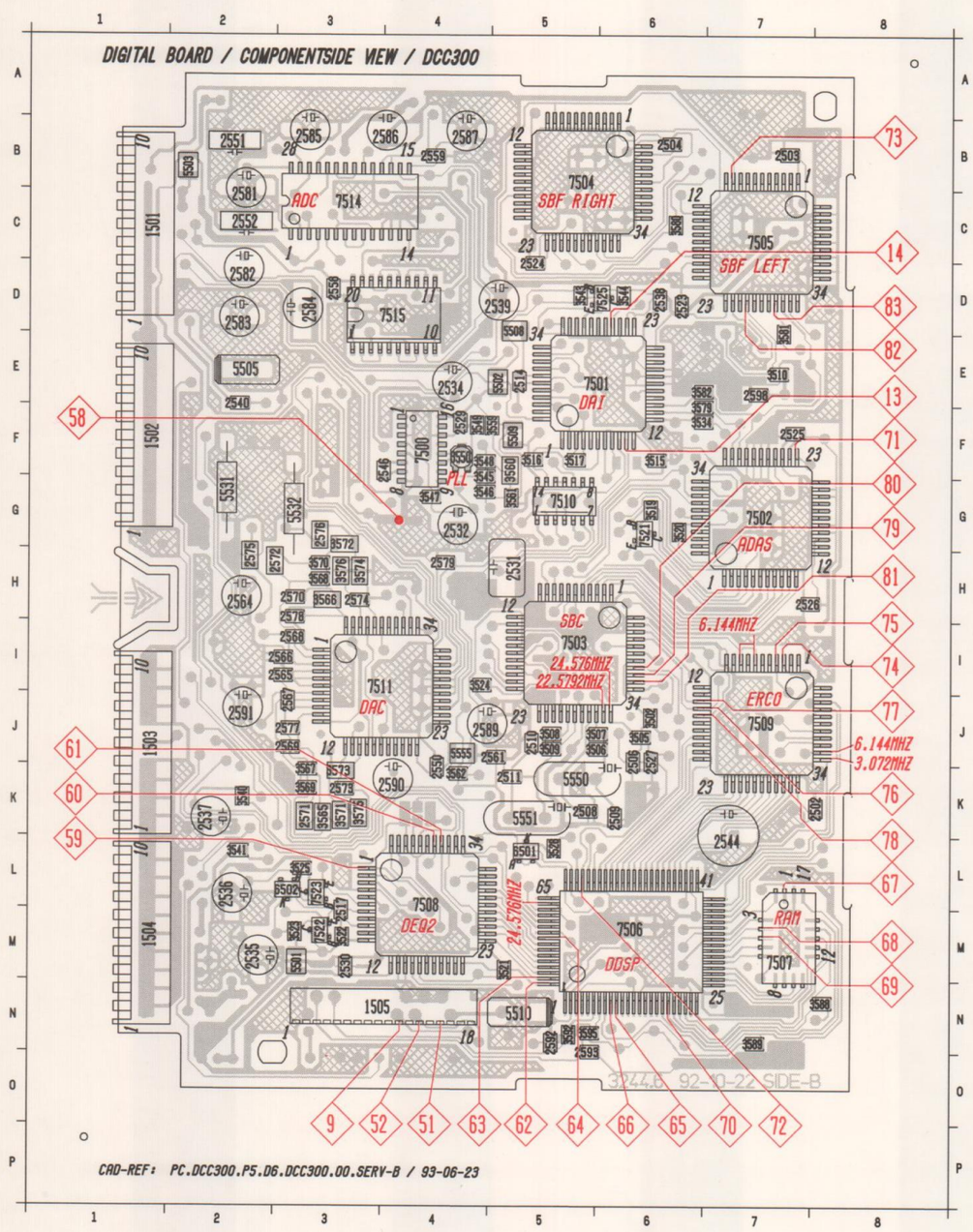
7510 G5
7511 I3
7514 C3
7515 D4
7521 G6
7522 M3
7523 L3
7525 D6



Note: The digital pcb is a four-layer board. As the two middle layers are just connected to +5D resp. GND these patterns are not shown.

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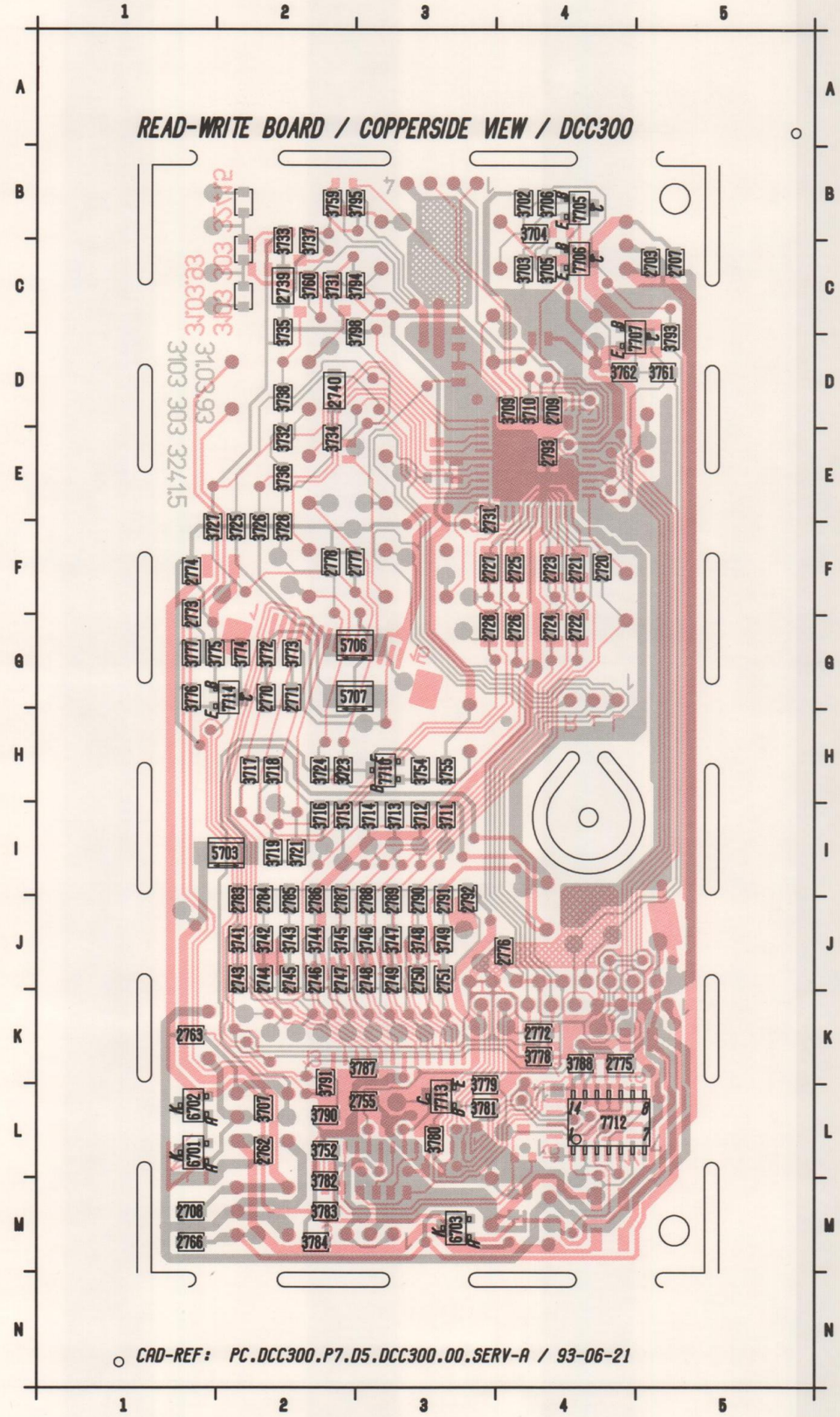
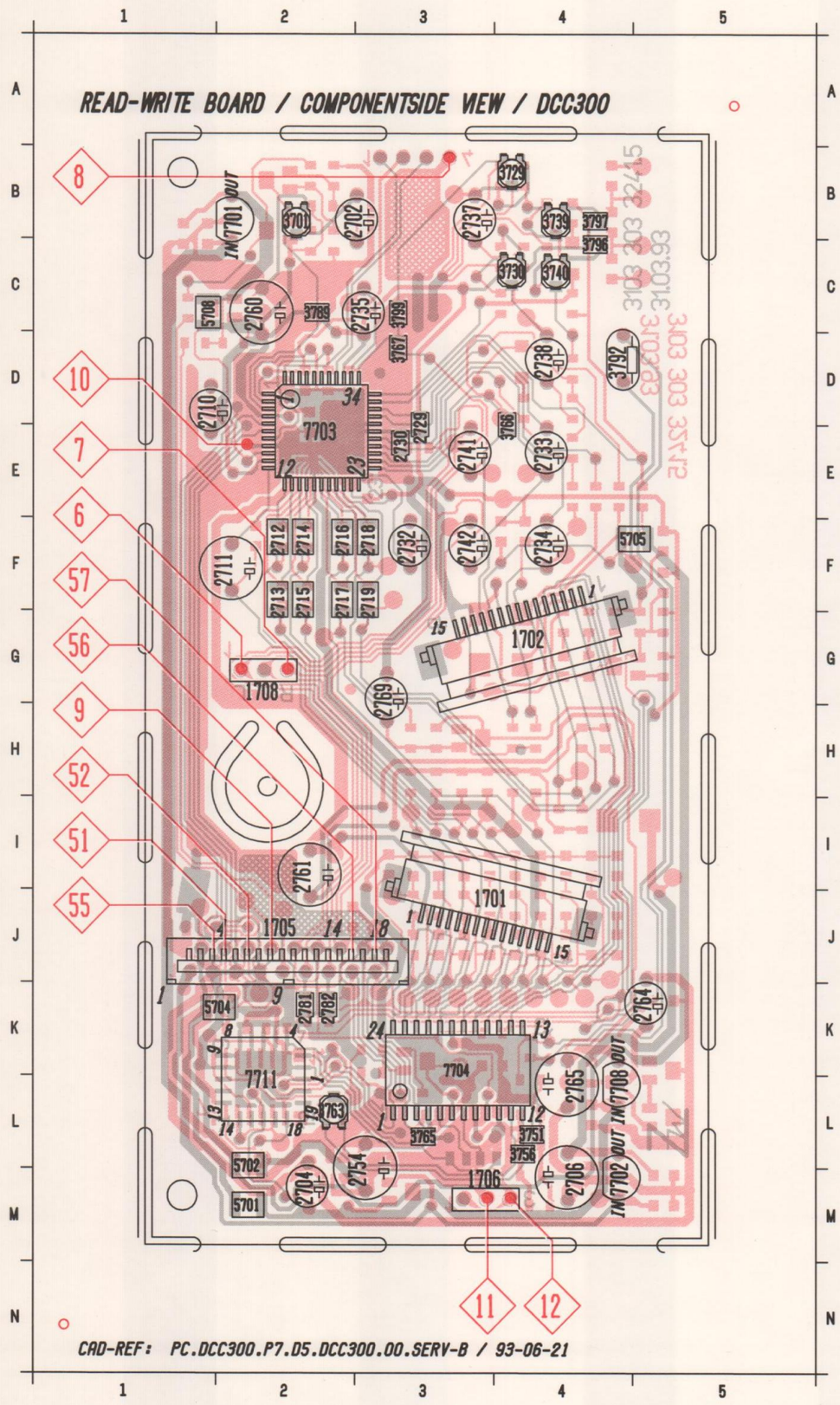
READ/WRITE BOARD, VALID FOR PRODUCTION STAGE "5"

2703 C5
2707 C5
2708 M1
2709 D4
2720 F4
2721 F4
2722 G4
2723 F4
2724 G4
2725 F4
2726 G4
2727 F3
2728 G3
2731 E3
2739 C2
2740 D2
2743 J2
2744 J2
2745 J2
2746 J2
2747 J2
2748 J3
2749 J3
2750 J3
2751 J3
2755 L3
2762 L2
2763 K1
2766 M1
2770 G2
2771 G2
2772 K4
2773 F1
2774 F1
2775 K4
2776 J4
2777 F2
2778 F2
2783 J2
2784 J2
2785 J2
2786 J2
2787 J2
2788 J3
2789 J3
2790 J3
2791 J3
2792 J3
2793 E4
3702 B4
3703 C4
3704 B4
3705 C4
3706 B4
3707 L2
3709 D4
3710 D4
3711 I3
3712 I3
3713 I3
3714 I3
3715 I2
3716 I2
3717 H2
3718 H2
3719 I2
3721 I2
3723 H2
3724 H2
3725 F2
3726 F2
3727 F1
3728 F2
3731 C2
3732 E2
3733 C2
3734 E2
3735 C2
3736 E2
3737 C2
3738 D2
3741 J2
3742 J2
3743 J2
3744 J2
3745 J2
3746 J3
3747 J3
3748 J3
3749 J3
3752 L2
3754 H3
3755 H3
3759 B2
3760 C2
3761 D5
3762 D4
3772 G2
3773 G2
3774 G2
3775 G1
3776 G1
3777 G1
3778 K4
3779 L3
3780 L3
3781 L3
3782 M2
3783 M2
3784 M2
3787 K3
3788 K4
3790 L2
3791 K2
3793 D5
3794 C2
3795 B2
3798 C2
5703 I2
5706 G2
5707 G2
6701 L1
6702 L1
6703 M3
7705 B4
7706 C4
7707 D4
7710 H3
7712 L4
7713 L3
7714 G2





1701 J3
1702 G4
1705 J2
1706 M3
1708 G2
2702 B2
2704 M2
2706 M4
2710 D1
2711 F2
2712 F2
2713 F2
2714 F2
2715 F2
2716 F2
2717 F2
2718 F3
2719 F3
2729 E3
2730 E3
2732 F3
2733 E4
2734 F4
2735 C3
2737 B3
2738 D4
2741 E3
2742 F3
2754 L3
2760 C2
2761 I2
2764 K5
2765 L4
2769 G3
2781 K2
2782 K2
3701 B2
3729 B4
3730 C4
3739 B4
3740 C4
3751 L4
3756 L4
3763 L2
3765 L3
3766 E4
3767 D3
3789 C2
3792 D4
3796 C4
3797 B4
3799 C3
5701 M2
5702 L2
5704 K2
5705 F5
5708 C1
7701 B2
7702 M4
7703 E2
7704 K3
7708 L4
7711 L2

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A94-352

Service
Service
Service

Product Service Group CE Audio

Service Information

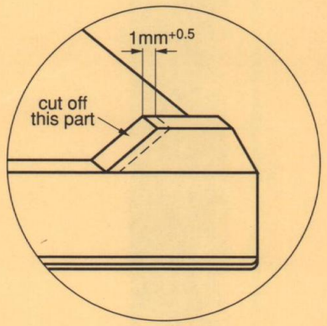
Already published Service Informations : A93-362 (4822 725 24912)

SERVICE HINT

SYMPTOM : *When the cassette is lifted at the left side, in order to remove it from the opened tray, the cassette gets stuck behind the front.*

CAUSE : The drawer (pos. 209) does not open far enough, because the tray-out switch (pos. 1437) is actuated too early.

CURE : The switch is opened/closed by a ridge, located at the back righthand corner of the drawer. To delay the switch actuation cut off some plastic of the ridge according to the sketch below.



REMARK : This modification also takes an influence on the feature "touch to close". If too much plastic is removed the tray might already close while a cassette is inserted !
Try to find an optimal compromise.

70DCC300, 70DCC380

A94-358

Service
Service
Service

Product Service Group CE Audio

Service Information

Already published Service Informations: A93-362 (4822 725 24912)
A94-352 (4822 725 24933)

REPLACEMENT OF THE DCC-HEAD

As already stated in the service manual the DCC-head cannot be replaced without special adjustment tools. In case of defective heads or write amplifiers the complete loading assy has to be sent to Philips Consumer Service for repair and adjustment of the recording current. Loose DCC-heads are not supplied. The service codenumber of the DCC-head, published in the partslist of the RED1 tape transport (page 60), has been referred to the service code of the complete loading assembly (4822 691 20833).

CORRECTIONS TO THE SERVICE MANUAL

- Partslist of RED1 tape transport (page 60)
  Service codenumber of capstan motor, item 1023, should read 4822 361 21646.
- Partslist of digital board PCB5 (page 74)
  Service codenumber of A/D-converter AK5339, item 7514, should read 4822 209 33849.

SERVICE TOOLS

- Dolby testcassette MTT-150 is available under service codenumber 4822 397 30271, Dolby testcassette TCC-130 via codenumber 4822 397 30269. With one of these cassettes the Dolby adjustment can be achieved.
- The DCC cleaning cassette SBC3500 is available under service codenumber 4822 015 20646.