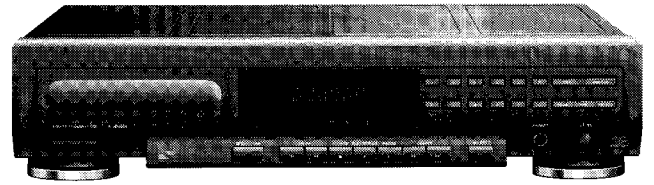


Service
Service
Service



Service Manual

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TECHNICAL SPECIFICATIONS

General

1. Mains voltage	CD911/00S	: 230V (+6 -10%)
	CD921/17S	: 117V ($\pm 10\%$)
2. Mains frequency		: 50-60 Hz
3. Mains voltage selection		: No
4. Power consumption mains, standby		: < 3W

Remote Control

A. Internal: RC5(only CD921)

B. External: ESI

Specification:	V-in Low	: from -2.0 V to +1.6 V
	V-in High	: from +3 V to +7.5 V
	R-in	: from 47 k Ω to 68 k Ω

Line output

1. Number of channels	: 2
2. Output voltage	: 2 V _{rms} \pm 2 dB
3. Unbalance left-right	: max. 1 dB
4. Output resistance	: 1 k Ω
5. Amplitude linearity	: max. \pm 0.3 dB from 20 Hz to 20 kHz
6. Phase non-linearity	: max 7.0° from 20 Hz to 16 kHz
7. Signal to noise ratio	: min. 95 dB from 20 Hz to 20 kHz
8. Dynamic range (-60 dB)	: min. 85 dB from 20 Hz to 20 kHz
9. Total harmonic distortion + noise	: min. 80 dB from 20 Hz to 20 kHz
10. Intermodulation distortion	: min. 70 dB from 20 Hz to 20 kHz
11. Out-band attenuation	: min. 35 dB (above 40 kHz)
12. Channel separation	: min. 80 dB from 20 Hz to 20 kHz
13. Automatic switched deemphasis with time constant 15/50 μ s	
14. Non linearity at -90 dB	: \pm 2 dB
	: typ. 0 dB

Variable headphone (low end)

1. Output voltage	: max. 5 V _{rms} \pm 3dB
2. Unbalance left-right	: max. \pm 1.2dB
3. Output resistance	: 120 Ω
4. Load impedance range	: 32 Ω to 600 Ω load
5. Output power	: 0 to 30 mW into 30 Ω load
	: 0 to 50 mW into 150 Ω load
	: 0 to 30 mW into 600 Ω load

Audio specs in case of 600 Ω load at 4 V_{rms} voltage output

6. Signal to noise ratio	: typ. 80 dB
7. Dynamic range	: min. 70 dB (20 Hz - 20 kHz)
8. Total harmonic distortion	: min. 60 dB (20 Hz - 20 kHz)
9. Channel separation	: min. 70 dB (1 kHz)
	: min. 65 dB (31.5 Hz - 16 kHz)

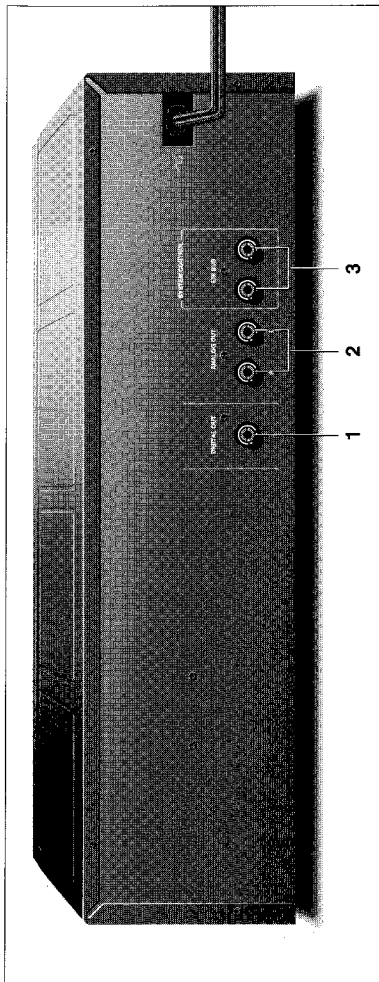
Dimensions and weight

1. Apparatus tray closed	: WxDxH 435 x 300 x 90/106 mm
2. Apparatus tray open	: WxDxH 435 x 445 x 90/106 mm
3. Weight	: 4 kg

Optical read-out system

1. Laser type	: Semiconductor AlGaAs
2. Wavelength	: 780 nm \pm 20 nm
3. Light output (c.w.)	: max. 0.5 mW

INSTALLATION



ACCESSORIES

With this player are supplied:

- a connection cable;
- a remote control;
- batteries for the remote control.
- Remove all packaging materials from the player and the accessories.

CONNECTIONS

1 DIGITAL OUT

This output supplies a digital signal and can therefore only be connected to an input which is suitable for this signal. Use here a lead with one cinch plug on either end.



Never connect this jack to a non-digital input of an amplifier, such as AUX, CD, TAPE, PHONO, etc!

2 ANALOG OUT

For connecting to the amplifier.



- Insert a red plug into the 'R' jack and the other plug into the 'L' jack.

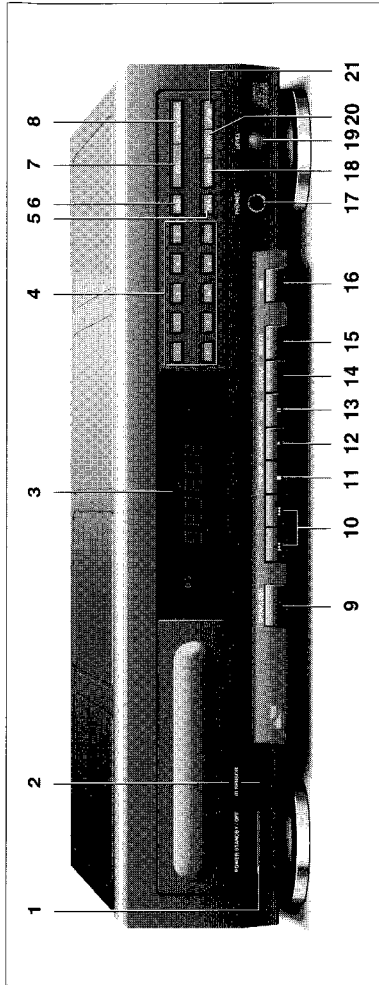
- Insert the two other plugs into the corresponding jacks of the CD or AUX input of your amplifier. You can also use the TUNER or TAPE IN-connection, but **never** the PHONO input!

3 ESI BUS (Enhanced System Intelligence)

For connecting up the equipment when you are incorporating the player in a HiFi system with ESI BUS connection (e.g. the PHILIPS 900 series).

When connecting the ESI BUS to the ESI BUS of the HiFi system the CD player should be switched off.

FUNCTIONAL OVERVIEW



FRONT OF PLAYER

1 POWER STANDBY/OFF

Switching on and off.

2 (Infra) Red SENSOR

Receives the signals from the remote control.

3 Display

Informs you about the functioning of the CD player.

4 1-0 digit keys

Selecting another track during play.

Selecting a track to start play with.

Selecting tracks when compiling a program.

Entering the recording time when making a tape recording.

5 CLR (clear)

Erasing a programme.

Erasing track numbers from a program.

6 PRG (program)

Opening and closing the memory when compiling a programme.

7 EDIT

Activating the EDIT function when making a tape recording.

8 PEAK SEARCH

Searching the loudest passage (peak) on a CD or in a programme when making a tape recording.

9 OPEN/CLOSE

Opening and closing the CD compartment.

The compartment also closes when the front is pressed briefly.

10

Selecting another track during play.

Selecting a track to start play with.

Fast search to a particular passage during play.

Selecting the recording mode when making a tape recording.

Selecting the recording time when making a tape recording.

11 STOP/CP

Stopping play.

Erasing a programme (CP = Clear Program).

12 PLAY/REPLAY

Starting play.

Returning to the beginning of a track.

13 PAUSE

Interrupting play.

14 SHUFFLE

Playing in random order.

15 REPEAT

Repeating play.

16 TIME

Selecting the time information you want to see.

17 PHONES

Connecting headphones.

18 REVIEW

Checking a programme.

19 LEVEL

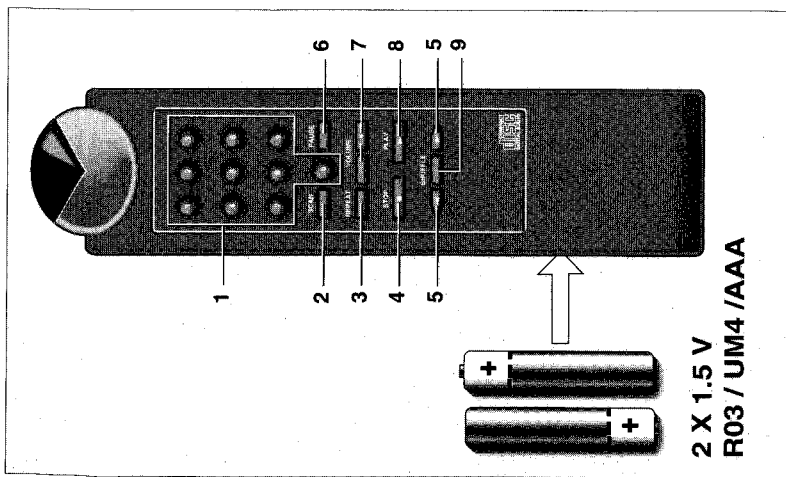
Adjusting the volume when listening with headphones.

20 FADER

Fading in and out during play.

21 SCAN

Automatically playing the beginning of each track.



2 X 1.5 V
R03 / UM4 / AAA

- 1 **1-0 digit keys**
 - Selecting another track during play.
 - Selecting a track to start play with.
 - Selecting tracks when compiling a program.
 - Entering the recording time when making a tape recording.
- 2 **SCAN**
 - Automatically playing the beginning of each track.
- 3 **REPEAT**
 - Repeating play.
- 4 **STOP**
 - Stopping play.
- 5 **▶▶**
 - Selecting another track during play.
- 6 **▶**
 - Selecting a track to start play with.
- 7 **▶▶▶**
 - Fast search to a particular passage during play.
 - Selecting the recording mode when making a tape recording.
 - Selecting the recording time when making a tape recording.
- 8 **PAUSE**
 - Interrupting play.
- 9 **- VOLUME +**
 - Adjusting the sound level when the player is connected via the ANALOG OUT jack or the DIGITAL OUT jack to an amplifier or HiFi system *without* its own control.

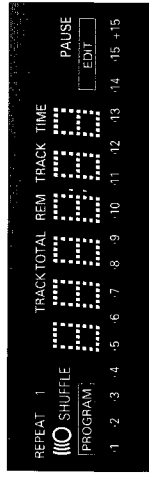


- The life of the batteries of the remote control is around one year. For replacement only use batteries of the type R03, UM4 or AAA.
- When the player is incorporated in a HiFi system with ESI BUS connection the player can be operated with the remote control of the system.

IMPORTANT!

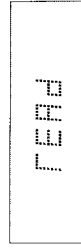
When connecting the ESI BUS of the CD player to the ESI BUS of the HiFi system the CD player should be **switched off**.

DISPLAY

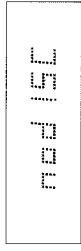


- REPEAT**
 - Lights up when you repeat a CD or a program.
- REPEAT 1**
 - Lights up when you repeat a track.
- Ⓜ**
 - Lights up when the player receives a command from the remote control (*only if no ESI BUS connection has been made*).
- SHUFFLE**
 - Lights up when the tracks are played in random order.
- PROGRAM**
 - Flashes when a program is being compiled.
 - Lights up when a program is being played.
- TRACK -** Indicates:
 - what track is being played;
 - the number of tracks on the CD or in a program.
- TRACK TIME**
 - Indicates the elapsed playing time of the track being played.
- REM(aining) TRACK TIME**
 - Indicates the remaining playing time of the track being played.
- TOTAL REM(aining) TIME**
 - Indicates the remaining playing time of the CD or a program.
- TOTAL TIME**
 - Indicates the total playing time of the CD or a program.
- PAUSE**
 - Lights up when play is interrupted.
- EDIT**
 - Lights up when the player is put into the EDIT mode.
- 1-15 track number indicator**
 - Shows the number of tracks on the CD.
- + 15**
 - Lights up when there are more than 15 tracks on the CD.

DISPLAY MESSAGES



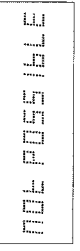
Lights up when the CD's contents list is being scanned.



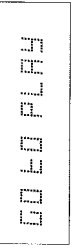
Lights up when there is no CD in the CD compartment.



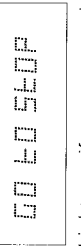
Lights up when insert a non audio CD (CD-ROM, CD-I or CDV).



Lights up when you select a non-existent track number.



Lights up if you try to activate a function for which you must first start play.



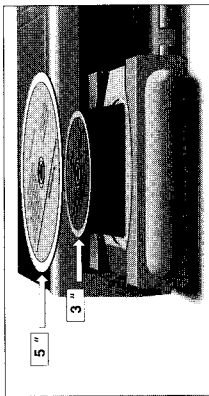
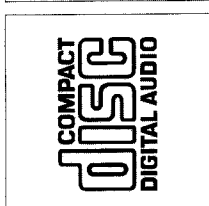
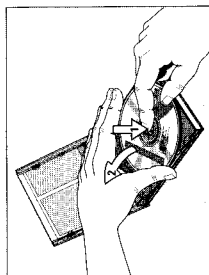
Lights up if you try to activate a function for which you must first stop play.

PLAYBACK

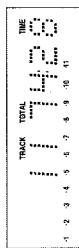
NORMAL PLAYBACK (PLAY/REPLAY)

NOTE! Use only audio CDs; no CD-ROM, CD-I or CDV.

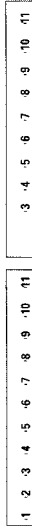
- Press POWER/STANDBY OFF **1** to switch the player on.
- Open the CD compartment by pressing OPEN/CLOSE **9**.
- OPEN lights up.
- Insert an audio CD, **printed side up**, and close the compartment



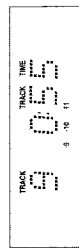
- CLOSE lights up, followed by READ. The number of tracks and the playing time of the CD are shown on the display.



- Press PLAY/REPLAY **12** to start play. You can also press PLAY/REPLAY immediately after inserting the CD; the compartment then closes automatically. You can also close the CD compartment by pressing its front; playback will then start automatically.
- The number indicator shows how many tracks are on the CD; when a track has been played its number disappears.



- The track being played is always shown under TRACK and its elapsed playing time is shown under TRACK TIME.



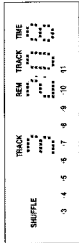
- Play will stop after the last track.
- Press POWER/STANDBY OFF **1** to switch the player off.

You can interrupt playback by pressing PAUSE **13**; PAUSE then lights up. Press PLAY/REPLAY **12** to restart; if you first press PAUSE again and then PLAY/REPLAY, the current track starts again from the beginning. You can also restart play by pressing SCAN **21**, SHUFFLE **14** or the 1-0 digit keys **4**. If you press PLAY/REPLAY during play, the current track starts again from the beginning. You can stop playback by pressing STOP/CP **11** or OPEN/CLOSE **9**.

PLAYBACK

PLAYING THE CD IN RANDOM ORDER (SHUFFLE)

- Press SHUFFLE **14** before or during play.
- If the CD compartment was open, it will now close.
- SHUFFLE lights up and all the tracks are now played in a random order.
- Press SHUFFLE again if you wish to return to normal play.

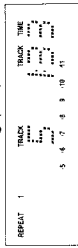


If you press **10**, you will return to a track which has already been played. If you press TRACK **▶▶▶ 10**, you will select any one of the following tracks.

If you press REPEAT **15**, twice the tracks will be repeated in a different order each time, although the first track played will always be the same.

REPEATING PLAY (REPEAT)

- **Repeating a track:** Press REPEAT **15** before or during playback.
- REPEAT **1** lights up; the track will now be repeated continuously.
- Press REPEAT twice to stop the track being repeated.



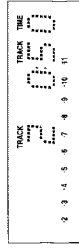
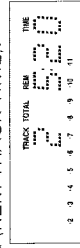
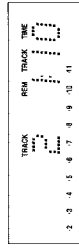
Repeating the CD:

- Press REPEAT **15** twice before or during playback.
- REPEAT lights up; the CD will now be repeated continuously.
- Press REPEAT again to stop the CD being repeated.



CALLING UP OTHER TIME INFORMATION (TIME)

- Press TIME **16** whenever you want to know the remaining playing time of the track being played (REM TRACK TIME).
- Press TIME again if you wish to know the remaining playing time of the entire CD (TOTAL REM TIME).
- Press TIME again if you wish to return to the elapsed playing time indication of the current track (TRACK TIME).

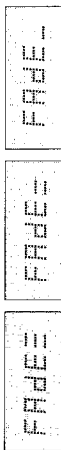


SETTING THE FADE-IN AND FADE-OUT TIME (FADER)

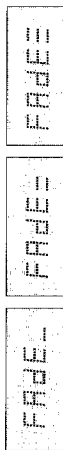
NOTE!

The FADER function can be used, if the player is connected to the amplifier or the system via the ANALOG OUT jack or the DIGITAL OUT jack.

- During play press FADER **20**. The sound level will now gradually decrease (FADE OUT), after which the player will go into the PAUSE mode.



- Press FADER again. Play continues and the sound level will increase again to the originally set level (FADE IN).



SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)

- In STOP mode, press PEAK SEARCH **8**. The CD or the program will now be scanned for the loudest passage (the peak).



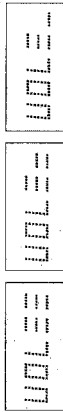
- The display shows the track being scanned and its elapsed playing time.
- When the loudest passage has been found it will be repeated continuously (from 2 seconds before the peak until 2 seconds after the peak).
- You can now adjust your recording device.
- You can stop the scan by pressing STOP/CP **11** or OPEN/CLOSE **9**; if you press PLAY/REPLAY **12**, the CD or the programme will be played from the beginning.

ADJUSTING THE SOUND LEVEL (- VOLUME +)

NOTE!

Use the - VOLUME + keys **7** (on the remote control) only if the player is connected via the ANALOG OUT jack or the DIGITAL OUT jack to an amplifier or HiFi system without its own remote control. The setting chosen with - VOLUME + will be cancelled when the player is switched off.

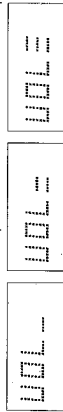
- Hold - VOLUME **7** (on the remote control) pressed down. VOLUME lights up; the output signal from the player will now decrease gradually.
- The successive steps are shown on the display.



- Release the key as soon as the required sound level is obtained.

- Hold VOLUME + **7** (on the remote control) pressed down. VOLUME lights up; the output signal will now increase again gradually to the maximum level.

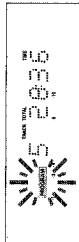
The successive steps are shown on the display.



- Release the key as soon as the required sound level is obtained.

- FULL lights up if you exceed the maximum of 30 tracks.
- NOT POSSIBLE will light up if you select a non-existent number.
- USE 0 - 9 lights up if you press ◀ or ▶ or **10** while programming.

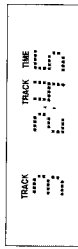
- In STOP mode, press PRG (program) **6** to open the memory.
- PROG lights up and PROGRAM starts flashing.
- Key in the required numbers; every number you key in will be directly included in the program.
- Each time you key in (= store) a track number, the number of tracks and the playing time of your program will be shown under TRACK and TOTAL TIME.



- The track number indicator always shows which numbers have been stored.
- Press PRG (program) **6** to quit the PROGRAM mode.
- Press PLAY/REPLAY **12** to play the program.

CHECKING THE PROGRAM (REVIEW)

- Press REVIEW **18** prior to, during or after programmed play.
- All the numbers appear in the programmed sequence under TRACK; under TRACK TIME you will see the playing time of each track.



NO PROG lights up if no track numbers have yet been stored. With REVIEW you can proceed more rapidly to the next block of information.

PLAYING THE PROGRAM (PLAY/REPLAY)

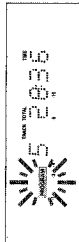
- Press PLAY/REPLAY **12**.
- Playback starts with the first number of the program.
- All keys (except, PRG (program) **6**, CLR (clear) **5**, EDIT **7** and PEAK SEARCH **8**) can be used during programmed play. Search for a particular passage is only possible within the track being played.

STORING A PROGRAM (PRG and 1-0)

You can store 30 tracks from each CD in any required sequence in a program.

NOTE!

- FULL lights up if you exceed the maximum of 30 tracks.
- NOT POSSIBLE will light up if you select a non-existent number.
- USE 0 - 9 lights up if you press ◀ or ▶ or **10** while programming.
- In STOP mode, press PRG (program) **6** to open the memory.
- PROG lights up and PROGRAM starts flashing.
- Key in the required numbers; every number you key in will be directly included in the program.
- Each time you key in (= store) a track number, the number of tracks and the playing time of your program will be shown under TRACK and TOTAL TIME.



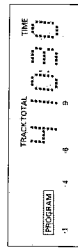
- The track number indicator always shows which numbers have been stored.
- Press PRG (program) **6** to quit the PROGRAM mode.
- Press PLAY/REPLAY **12** to play the program.

ERASING A PROGRAM (STOP/CP, CLR or OPEN/CLOSE)

- In PLAY mode:
 - Press OPEN/CLOSE **9** or STOP/CP **11** (twice).
- In STOP mode:
 - Press OPEN/CLOSE **9**, CLR (clear) **5** or STOP/CP **11**.
- The programme has now been erased.

ERASING A TRACK FROM THE PROGRAM (CLR)

- Press REVIEW **18** before or after programmed play (STOP mode).
- All the numbers appear in the programmed sequence under TRACK.
- Press CLR (clear) **5** as soon as the number you wish to erase, appears.
- The number disappears from the number indicator; it has now been erased.
- The display shows the remaining tracks and programme time for a few seconds.



NO PROG lights up if no track numbers have yet been stored.

EDIT

The EDIT function has two recording modes in which you can store the recording time of the tape in the player memory.

EDIT NORMAL – The player will determine which tracks fit on each side of the tape and will stop after the last track. The tracks will be recorded in the order in which they appear on the CD.

EDIT OPTIMAL – The player now calculates the combination of tracks that will optimize the use of available recording time.

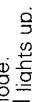
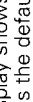

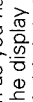
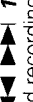
NOTE!

- The EDIT function **cannot** be used for CDs containing more than 30 tracks.
- The – VOLUME + keys **7** (on the remote control) may not be used during recording as they affect the strength of the signal from the player.

RECORDING IN THE EDIT MODE

If required you can first search the loudest passage on the CD or in the program and adjust your recording device. This can also be done after selecting the recording mode and the recording time.

For this see 'SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)' on page 12.

- In STOP mode, press EDIT **7** to activate the EDIT mode.
-  lights up. The display shows EDIT (= EDIT NORMAL which is the default setting).
- With   **10** you can now select OPT(imal), CANCEL or EDIT (NORMAL) again. The display shows OPT(imal), CANCEL, or EDIT again.
- Press EDIT **7** to store the required recording mode (NORMAL or OPTIMAL).
- If you select CANCEL, the EDIT mode will be cancelled and the player will go back to STOP mode.
- As soon as you have stored the recording mode the display shows **C30** (default setting).
- With   **10** you can now select the required recording time: **C100, C105, C120, C30, C45, C60, C75** or **C90**.

Other recording times can be selected using the 1-0 digit keys **4**; in EDIT NORMAL mode the recording time must be at least equal to the playing time of the first track on the CD or in the program.

In EDIT OPTIMAL mode the recording time must be at least equal to the playing time of the **shortest track on the CD or in the program**.

- **NOT POSSIBLE lights up if you select a 'wrong' time.**
- Press EDIT **7** to store the required recording time.
- The CD player will now go back to STOP mode
- The track number indicator shows which tracks fit onto side A of the tape.

– The number of tracks and their playing time will be shown under TRACK and TOTAL TIME.

- You can now record the entire CD or a program from it.
- Press PLAY/REPLAY **12**
- The numbers for side A of the tape will be played one after the other.
- After the last track that fits on side A of the tape, the CD player will go into PAUSE mode; PAUSE lights up.
- The track number indicator shows which tracks fit onto side B of the tape. Under TRACK you will see the number of the first track to be recorded.
- Turn the tape over or select the tape travel direction for side B.
- Press PLAY/REPLAY **12**.
- The remaining tracks will now be played.
- After the last track play will stop; EDIT CANCELLED lights up.

NOTE!

As soon as you press PLAY/REPLAY **12** the other player functions will temporarily be switched off to prevent the recording being interfered with; EDIT ACTIVE lights up if you press one of the other buttons during recording.

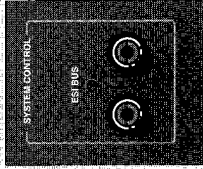
You can quit the EDIT mode by pressing STOP/CP **11** or OPEN/CLOSE **9**; EDIT CANCELLED then lights up.

EDIT NOT POSSIBLE lights up if you try to record a CD containing more than 30 tracks.

SYSTEM ASPECTS

ENHANCED SYSTEM INTELLIGENCE (ESI)


If the player is connected via the ESI BUS sockets to the ESI BUS sockets of a HiFi system (e.g. the PHILIPS 900 series), the player can be operated via the remote control of the system. In addition, the functions mentioned below are then accessible (if available in the system):



NOTE!

When connecting the ESI BUS to the ESI BUS of the HiFi system the CD player should be **switched off**.


CD DUBBING (synchronized recording)

- Press the player to the STOP mode.
- Press CD SYNC. (CD DUBBING) on the cassette deck.
- Peaksearch starts but nothing is being recorded yet.
- After the peak level has been detected you can adjust the recording level.
- Press PLAY on the deck.
- Recording starts and after 6 seconds play starts again at the beginning of the CD or the program.
- At the end of side A of the tape, synchronized recording will stop, except when the  mode has been selected on the cassette deck; the CD player will then go into PAUSE mode. The tape travel direction for side B will be selected automatically and the current track will be recorded again on side B of the tape.
- After the last track playback and recording will stop.

NOTE!

- As soon as you start recording, the other player functions will temporarily be switched off to prevent the recording being interfered with; CD DUBBING ACTIVE lights up if you press one of the other buttons during play/recording.
- You can stop playback/recording by pressing STOP/CP **11** or OPEN/CLOSE **9**.
- The CD DUBBING function will be cancelled if the CD player (or the system) is set to STAND BY mode.

Synchronized recording in combination with EDIT:

- Set the player to the EDIT mode.
- Select the required recording mode and recording time (see 'Recording in the EDIT mode' on page 14).
- Select the  mode (if available) on the cassette deck
- Press CD SYNC. (CD DUBBING) on the deck.
- Peaksearch starts but nothing is being recorded yet.
- After the peak level has been detected you can adjust the recording level.
- Press PLAY on the deck.
- Recording starts and after 6 seconds play starts again at the beginning of the CD or the program.
- The track number indicator shows which tracks fit onto side A of the tape.
- After the last track the CD player will go into PAUSE mode.
- PAUSE lights up.

SYSTEM ASPECTS

AUTOMATIC SOURCE SELECTION

If the AUTO SELECT button on the amplifier is pressed, the CD player will automatically be selected as the source, as the soon as you press PLAY/REPLAY **12**, SCAN **21** or SHUFFLE **14**.

AUTOMATIC STOP

If the AUTO SELECT button on the amplifier is pressed, the CD player will automatically go into the PAUSE mode as soon as another source in the system is selected (except when EDIT or CD DUBBING is active).

STAND BY

- With the STAND BY button on the remote control of the system you can set the player to STAND BY mode. The player will go to STAND BY mode automatically if the whole system is set to STAND BY mode.
- If the CD compartment was open, it will now close.
- Any program present, will be erased.
- Press any of the following buttons to cancel the STAND BY mode: PLAY/REPLAY **12**, STOP/CP **11**, SCAN **21**, SHUFFLE **14** 1-0 **4**, EDIT **7**, OPEN/CLOSE **9**, ◀◀▶▶ **10**, or PRG (program) **6**

TIMER

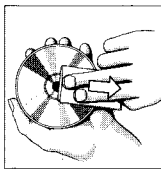
Using the TIMER function you can have playback (of a CD or a program) started at a particular time; for this refer to the operating instructions of the tuner (e.g. FT930).

ADDITIONAL INFORMATION

MAINTENANCE

The CDs

- Never write on the printed side of a CD.
- Do not attach any stickers to the CD.
- Keep the shiny surface of the CD clean. Use a soft lint-free cloth and always wipe the disc in a straight line from center to edge.
- Never use cleaning agents for conventional records.
- Detergents or abrasive cleaning agents should not be used either.

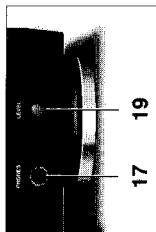


The player

- A chamois leather slightly moistened with water is sufficient for cleaning the player.
- Do not use cleaning agents containing alcohol, spirits, ammonia or abrasives.

CONNECTING HEADPHONES (PHONES)

- Connect headphones with a 6.3 mm jack plug to the PHONES jack **17**.
- The sound level is adjusted with the LEVEL control **19**.



TROUBLE SHOOTING

If a problem occurs, run through the points listed below before taking your player in for repair. If the problem remains, try to clear it by **switching the player off and on again**. If this also fails to help, consult your dealer.

Under no circumstances should you repair the player yourself as this will invalidate the warranty!

SYMPTOM	POSSIBLE CAUSE	REMEDY
- Playback of the CD does not start or interruption of playback.	- The CD has been loaded upside down. - No CD inserted. - The CD is badly scratched or dirty. - Moisture condensation on the lens.	<ul style="list-style-type: none"> • Reload the CD, label side up. • Insert a CD, label side up. • Clean the CD with a soft, lint-free cloth. • Leave the CD player in a warm environment until the moisture evaporates.
- Sound skips (at the same part).	- The CD is dirty.	<ul style="list-style-type: none"> • Clean the CD with a soft, lint-free cloth.
- The CD skips tracks.	- The CD is damaged or dirty.	<ul style="list-style-type: none"> • Replace or clean the CD.
- Playback does not start from the first track.	- PRG (program) or SHUFFLE activated.	<ul style="list-style-type: none"> • Switch off SHUFFLE or clear the program.
- No sound or bad sound.	- Loose or wrong connections. - Strong magnetic fields near the CD player.	<ul style="list-style-type: none"> • Check connections. • Find another place for the unit or change connections.
- Volume is too low.	- Sound level has been adjusted too low with the - VOLUME + keys on the remote control.	<ul style="list-style-type: none"> • Adjust sound level.
- No sound or bad sound on headphones.	- Level control set to - position. - Headphones jack is dirty.	<ul style="list-style-type: none"> • Set level control • Clean jack.
- Remote control does not function.	- Batteries are empty.	<ul style="list-style-type: none"> • Replace the batteries.
- Remote control commands are not properly received.	- The distance between remote control and CD player is larger than 10 meters.	<ul style="list-style-type: none"> • Use remote control receiver EM 2200/2201. • Reduce the distance between remote control and CD player.

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilez le bracelet muni d'une résistance de sécurité.
Veillez à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD). Unsorgfältige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern. Sorgen Sie dafür, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind. Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.



**CLASS 3B
LASER PRODUCT**

CAUTION

INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM

VARO!

AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE ÄLÄ KATSO SÄTEESEN

VARNING

OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRakta EJ STRÅLEN

ADVERSEL

USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UNSÆTTELSE FOR STRÅLING

DANGER

INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM

VORSICHT

UNSIHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN

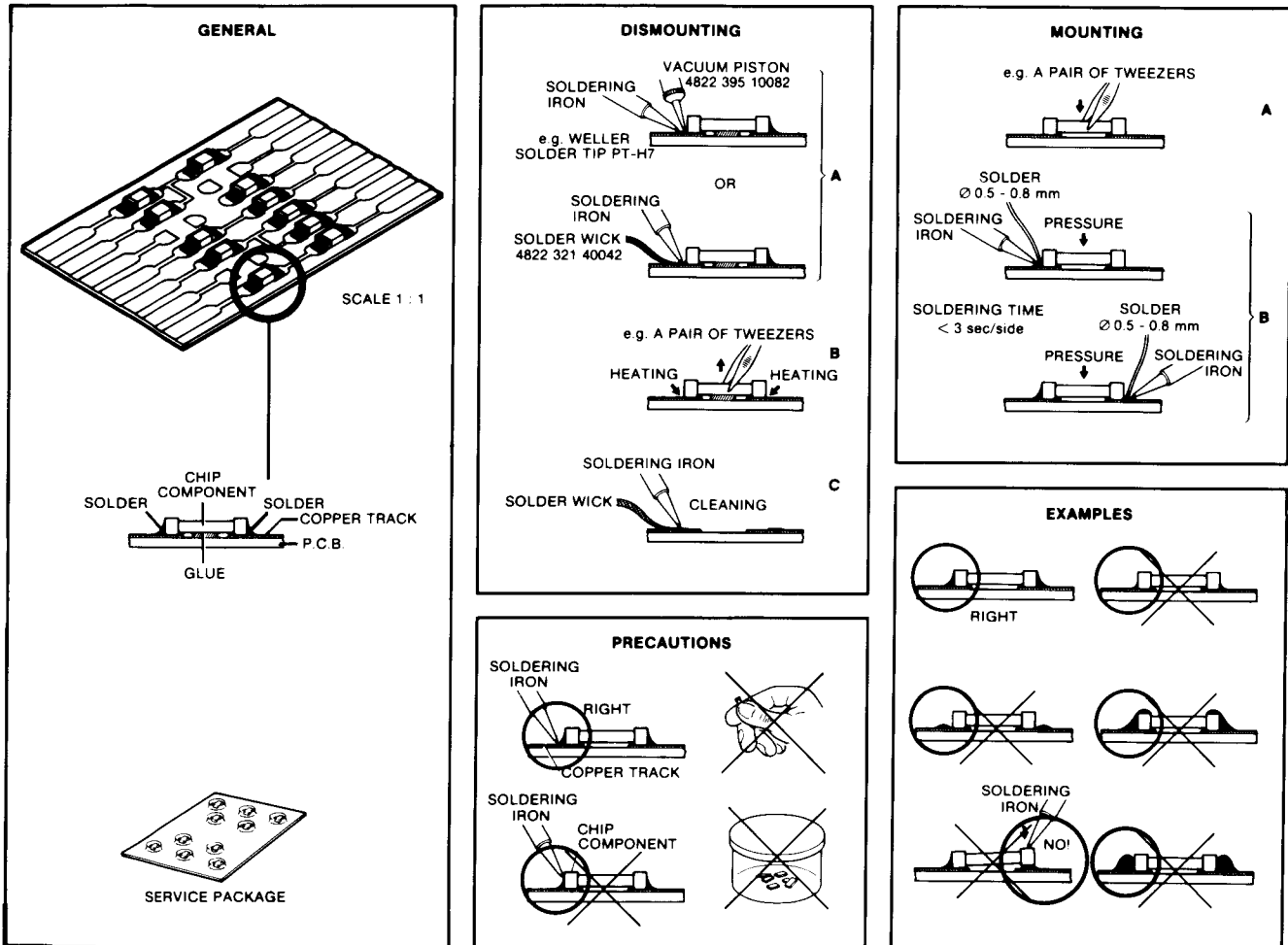
"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne."

**CLASS 1
LASER PRODUCT**

3122 110 03420

SERVICING HINTS

In the set chip components have been applied. For disassembly and assembly of chip components see the figure below.



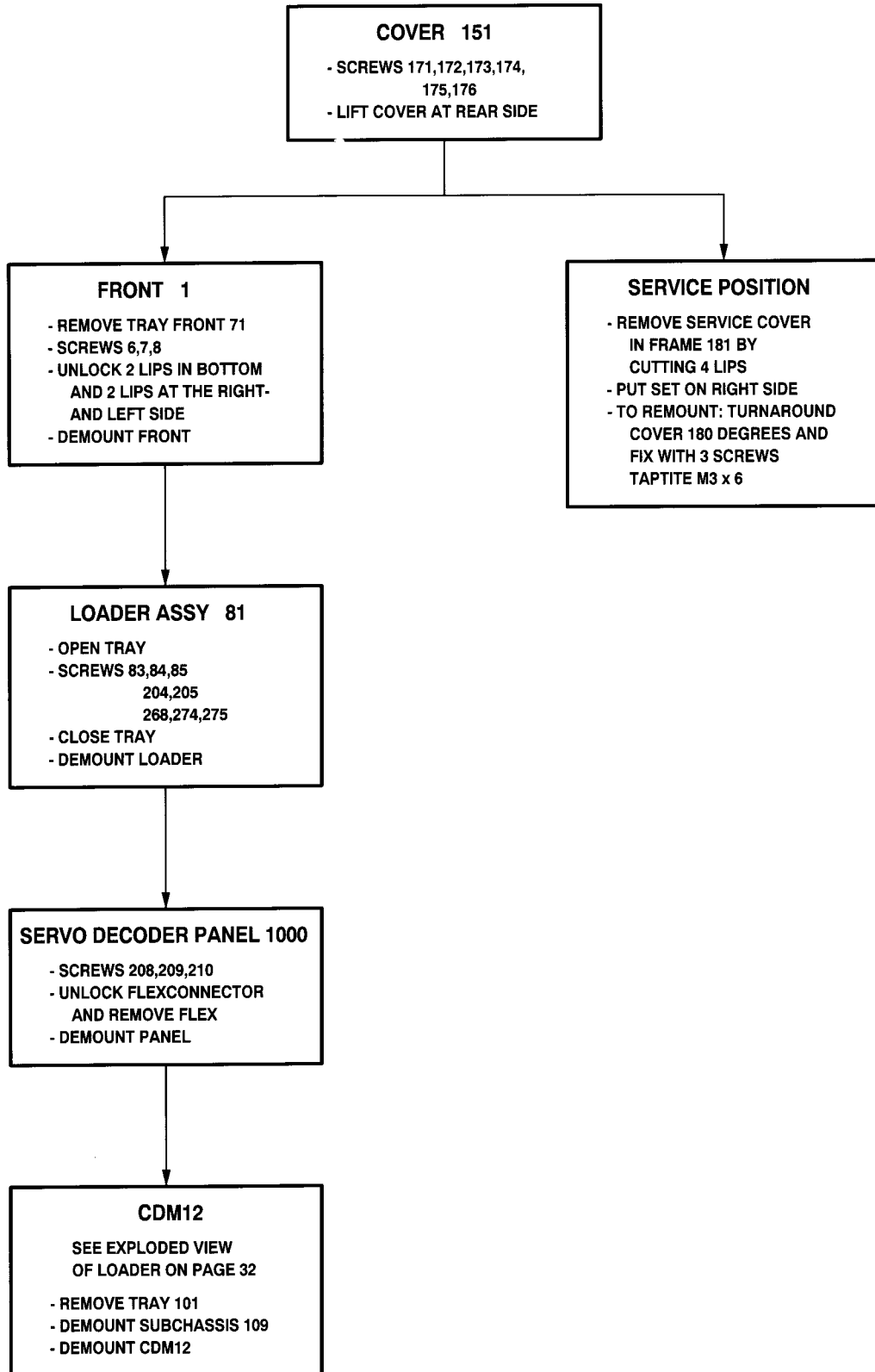
27 012C12

SERVICE TOOLS

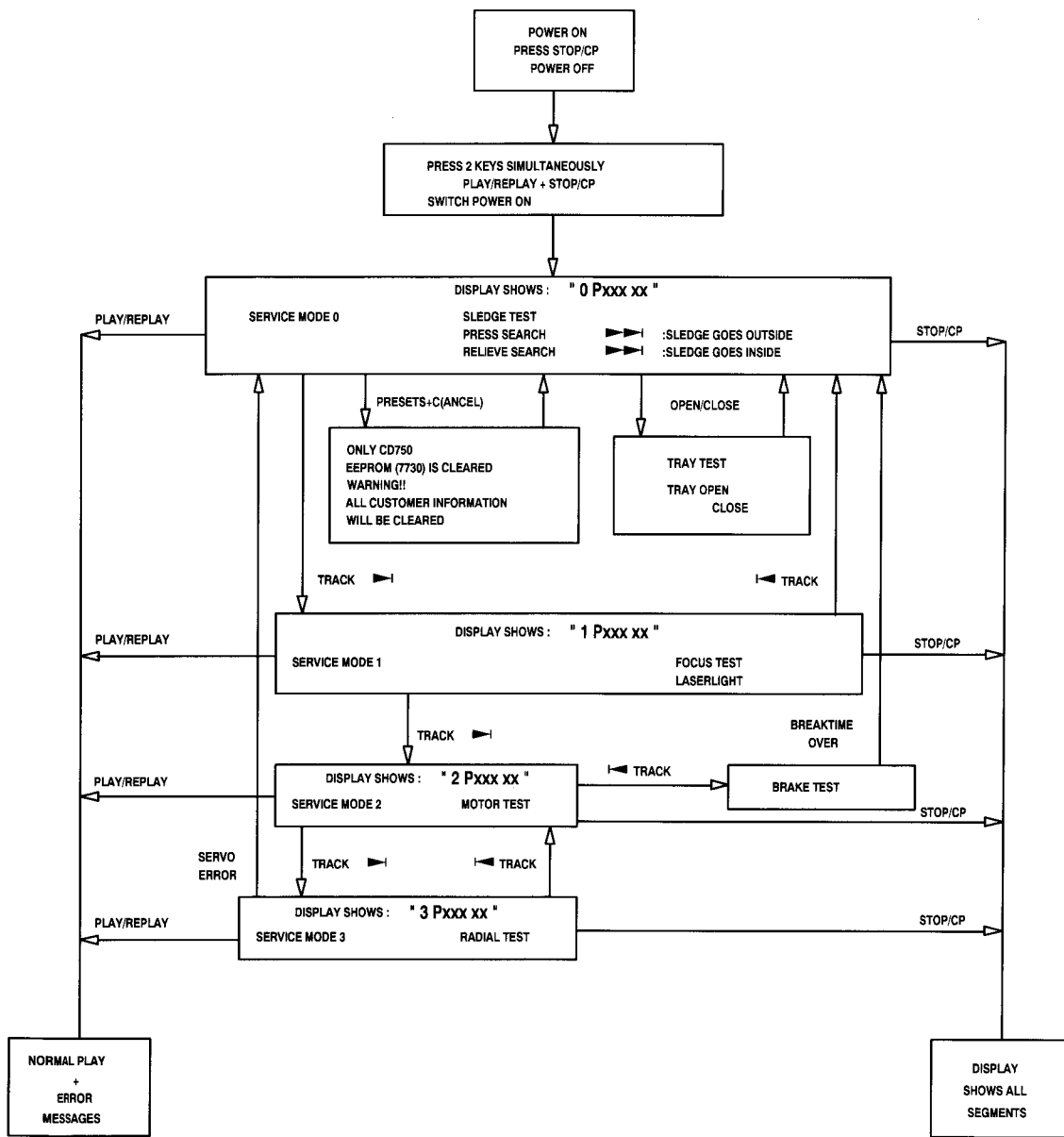
Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A)	4822 397 30096
Disc (65 min 1kHz) without pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204

DEMOUNTING INSTRUCTIONS

OPEN EXPLODED VIEW ON PAGE 33



SERVICE TEST PROGRAM



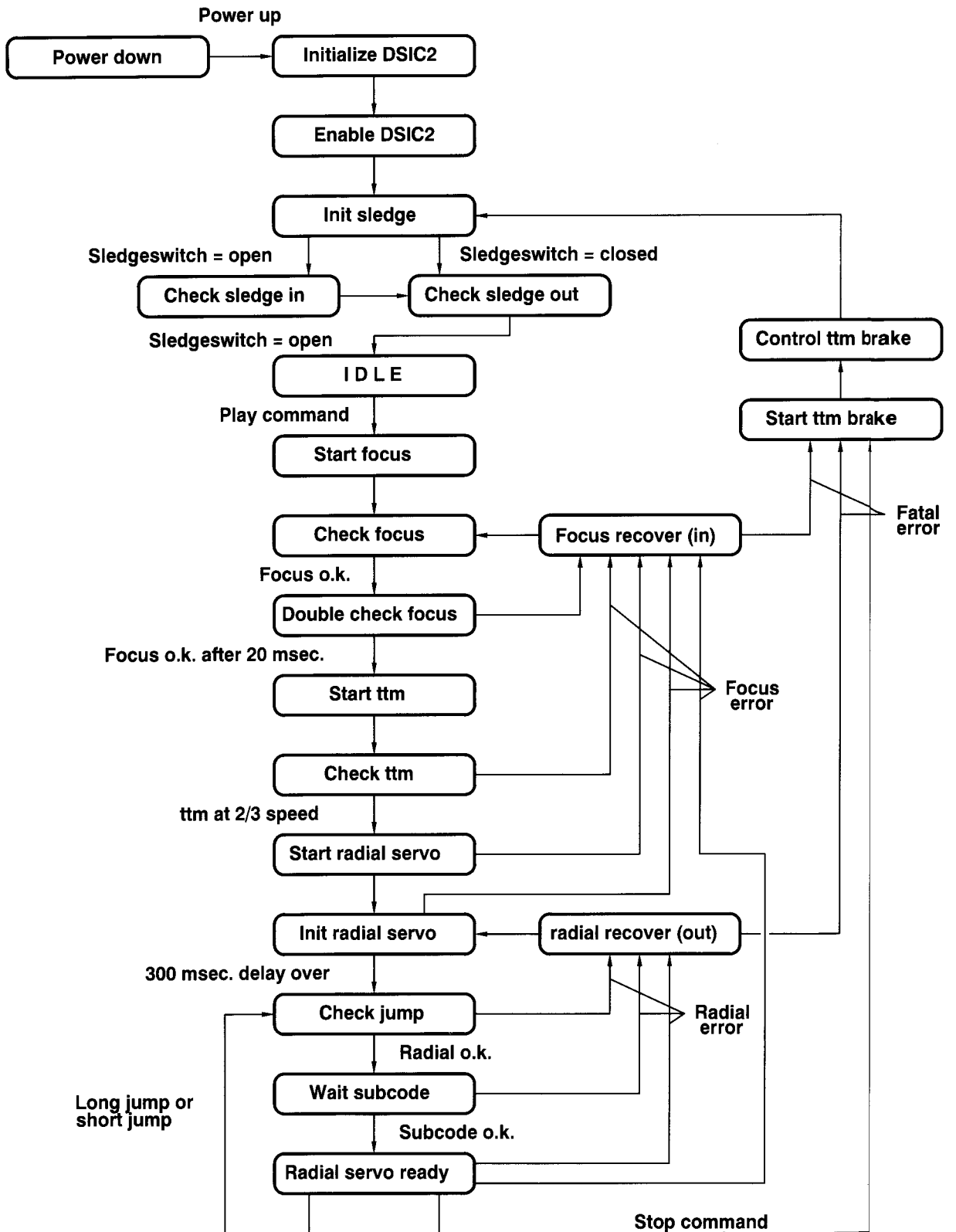
ERROR MESSAGES

- "SLEDGE ERROR"
- "FOCUS ERROR"
- "RADIAL ERROR"
- "MOTOR ERROR"
- "EEP ER"
- "EEP OK"

Pxxx = PROGRAM OF MICROPROCESSOR
 xx = VERSION OF PROGRAM

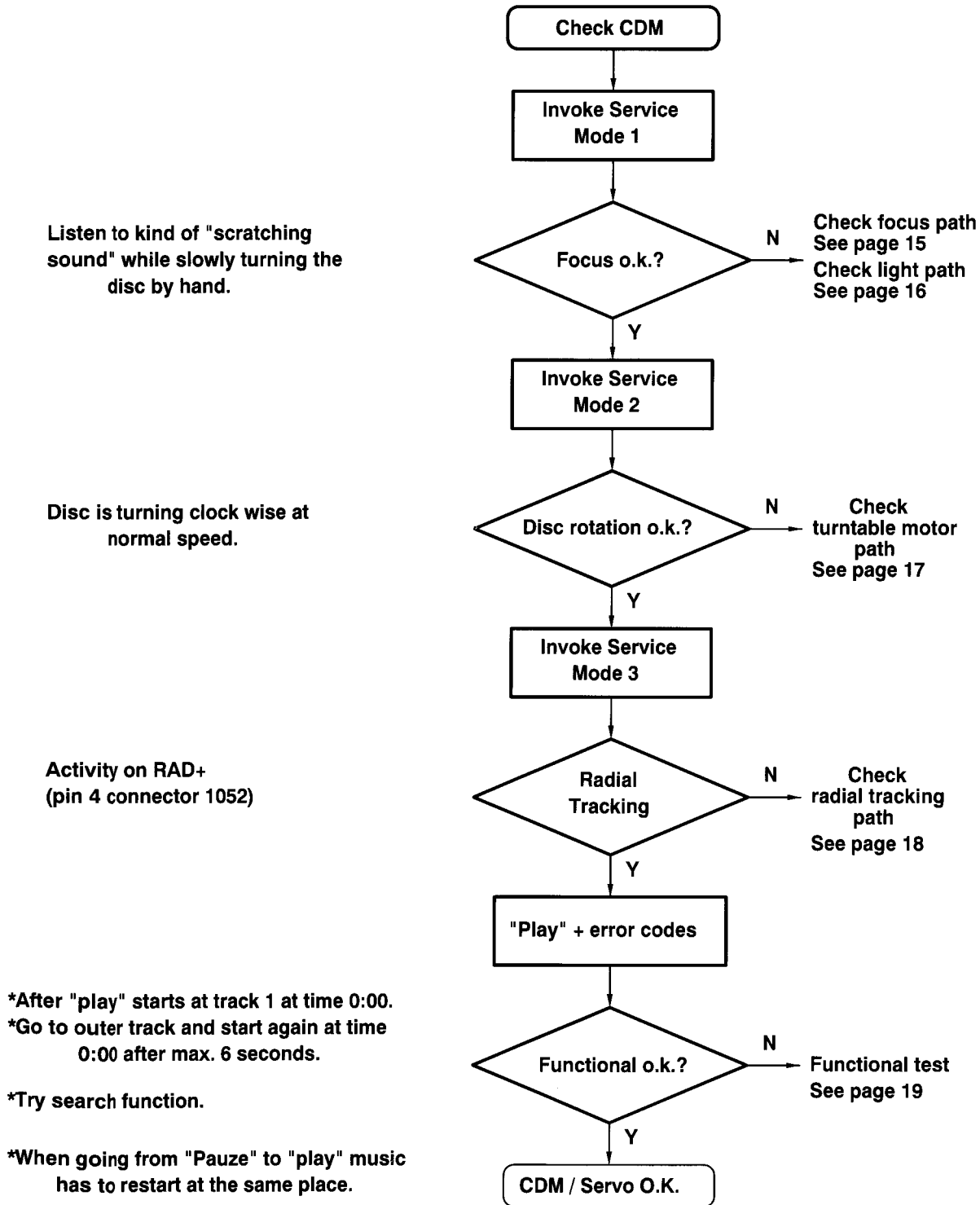
HAS1120
 9342

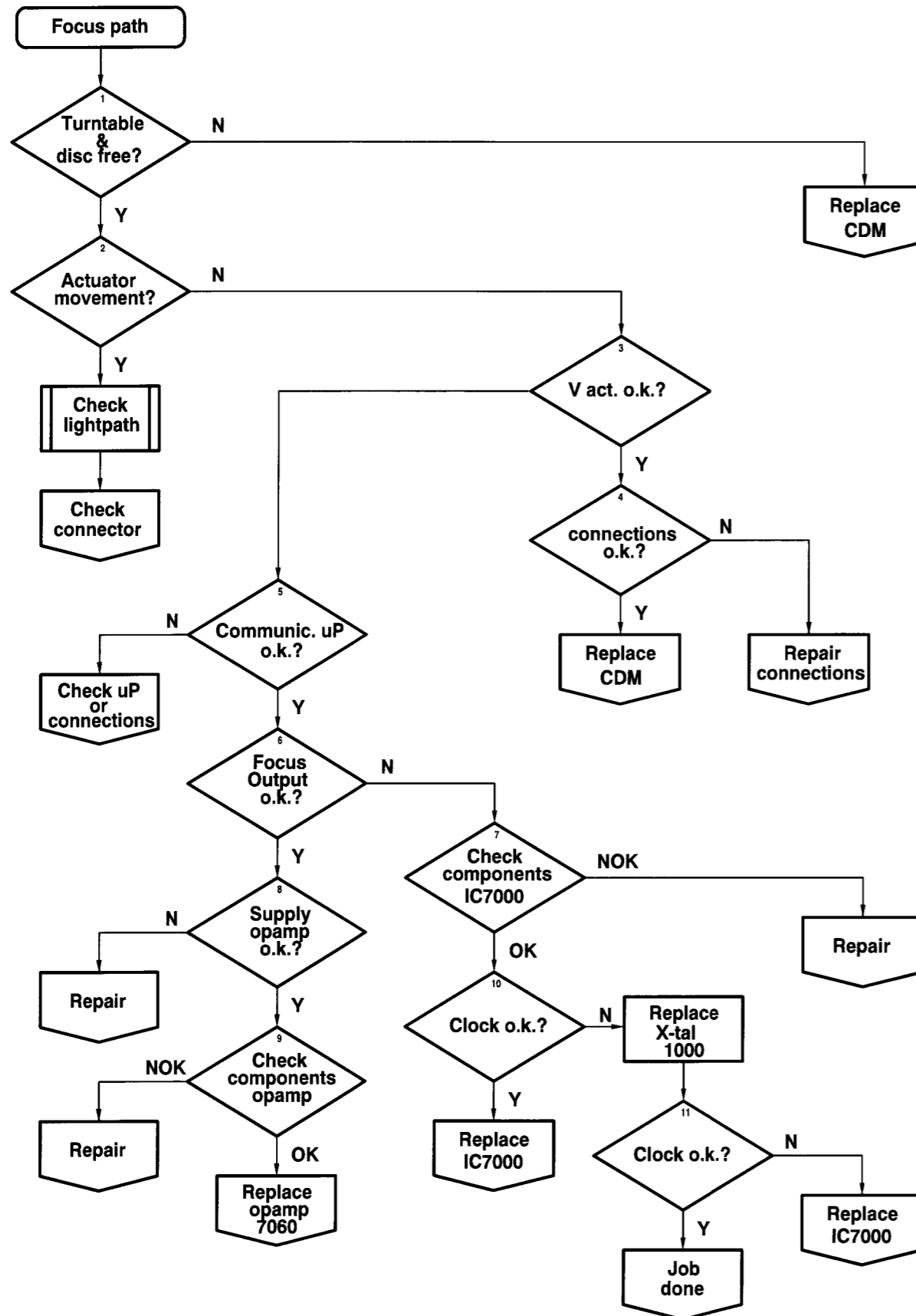
5. CDM 12.1 start up diagram.



FAULT FINDING GUIDE CDM 12.1

Main Fault Finding Guide CDM 12.1
System

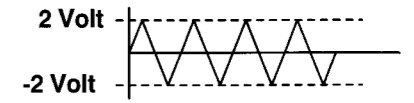




1)-Turntable and disc free?
Audible and visible control.

2)-Actuator movement?
Visual control.

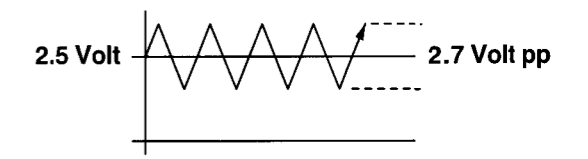
3)-Signals on actuator o.k.?
Triangle wave without disc.
See fig 1.



4)-Connections to actuator o.k.?
Check flex connector pin 2 and 3.

5)-Communication uP <-> IC7000.
SIDA activity (pin 27 of IC7000).

6)-Focus output o.k.?
See fig 2.
Measure with an 10k/3n3 low-pass filter.



7)-Components o.k.?
Check components R3010,R3011
C2012,C2013
X-tal 1000

8)-Power supply for opamp o.k.?
Check components R3006,R3007
C2008,C2009,C2071,C2074

9)-Check components o.k.?
Check components R3074,R3075,R3076,R3077
R3078,R3079
C2075,C2076

10) & 11)-Pin 17 of IC7000: a frequency of 8.46MHz?

WARNING !!! LASER DAMAGE !!!

For measurements on the laser (flexconnector pin 1052-6), certain conditions are absolutely necessary for precaution of laser damage.

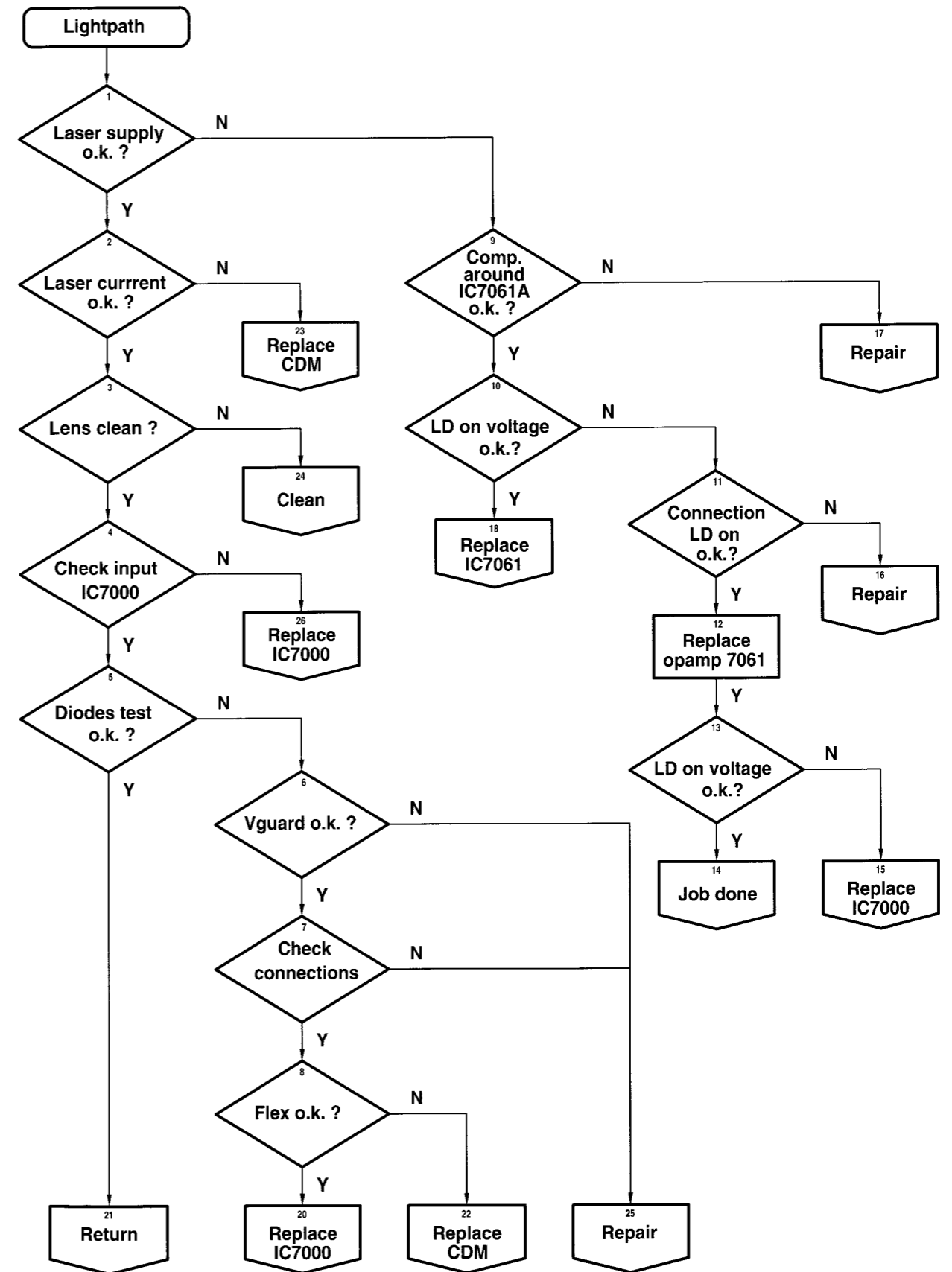
The instruction and sequence for measuring laser current is as follows:

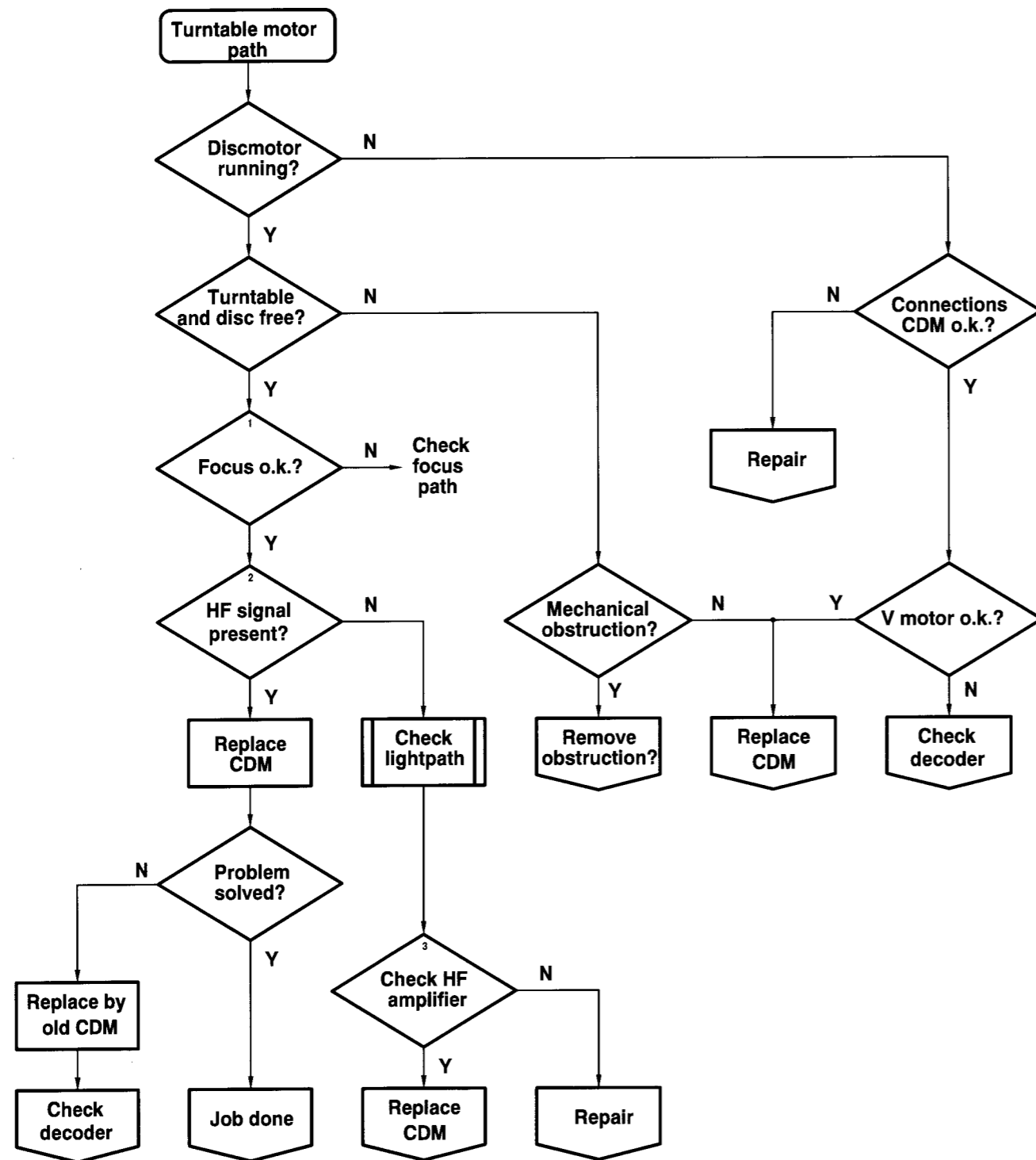
- turn off mains power.
- wait for > 1 second
- connect a multimeter (high input impedance, not grounded across resistor 3022. (*)
- turn on mains power and go to play mode.
- reading of measurement value (current = reading/4R7) (**)
- go to stop and turn off mains power.
- disconnect the multimeter.

* In case of a laser voltage measurement, connect the multimeter across elcap 2025, using the same procedure as mentioned above.

** If current is > 95 mA, you can be sure that the laser is defect; If the current is increasing during reading (within +/- 10 seconds), you can be sure that the laser is severely damaged.

- * 1)-Laser supply o.k.? Voltage across C2025: 4...5V
- ** 2)-Laser current o.k.? Voltage across R3022: 150...450mV
- 3)-Lens clean? Visual control. Check for dust,grease. Take attention for the blue coating.
- 4)-Check inputs. Switch back to service mode 0. Connect a 2.4 MOhm resistor from 1052 - 9 to 5V: Voltage on pin 5 of IC7000 < 50mV. 1052 - 10 to 5V: Voltage on pin 6 of IC7000 < 50mV. 1052 - 12 to 5V: Voltage on pin 7 of IC7000 < 50mV. 1052 - 11 to 5V: Voltage on pin 10 of IC7000 < 50mV. 1052 - 8 to 5V: Voltage on pin 11 of IC7000 < 50mV.
- 5)-Diodes o.k.? Use IR LED of remote control. A half sine wave must be measured on the diodes (on pin 8,9,10,11,12 of conn. 1052) in the 10mV range.
- * 6)-V guard o.k.? Voltage across C2025: 4...5V
- 7)-Check connections between main PCB and CDM
- 8)-Flex o.k.? Measure diode functions on CDM-flex
- 9)-Check components around IC7061 R3022,R3021,R3020 C2025,C2060,C2064
- 10)-LD ON voltage o.k.? Measure on pin 2 of IC7000:4...5V.





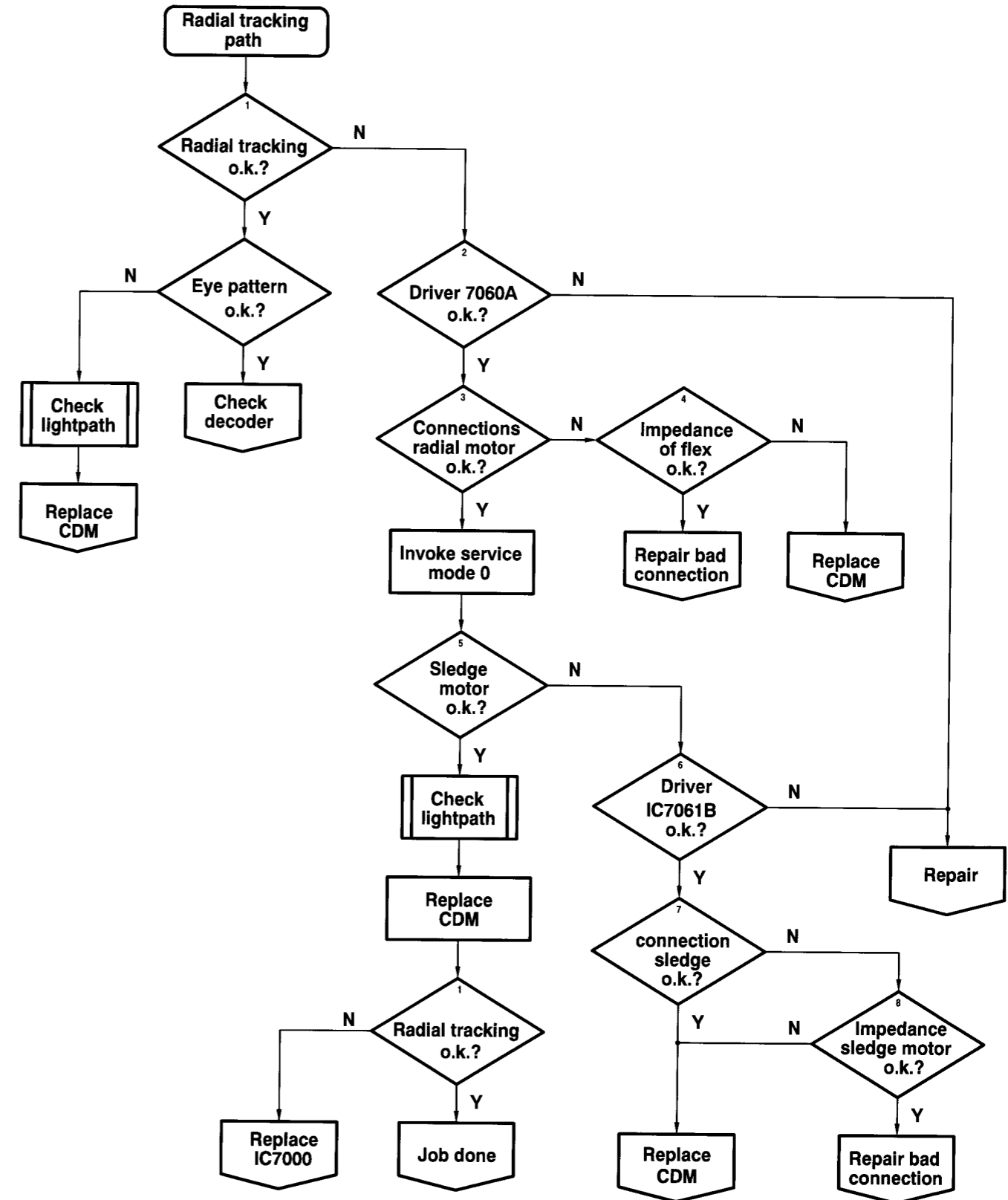
1)-Still in focus (focus o.k.?).
Voltage at pin 9 of connector 1052 > 15mV.

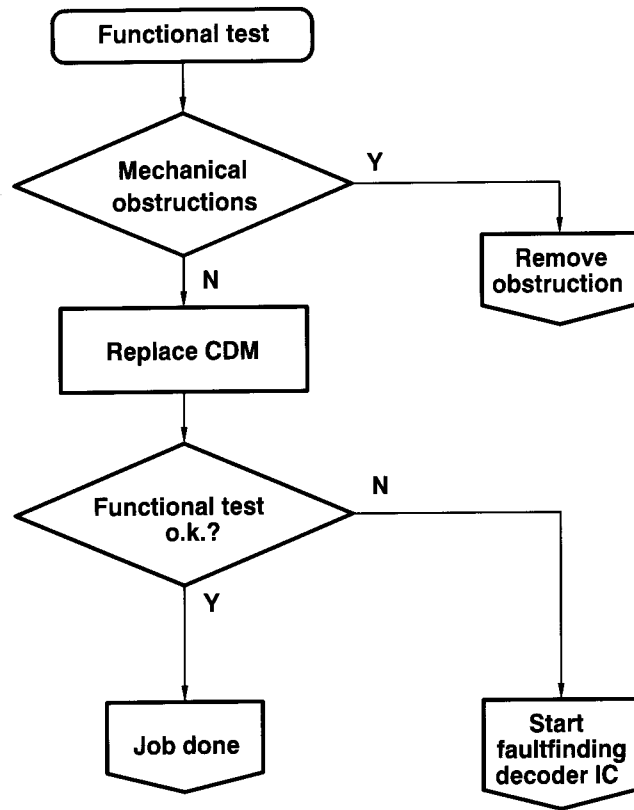
2)-HF-signal present.
VHFI (R3048) > 900mV pp. (testpoint 65).

3)-Check HF-amplifier.
* Supply 5V?
* Testpoint 17=1.4...1.9V DC?
* VHFI DC =2.9...3.6V?

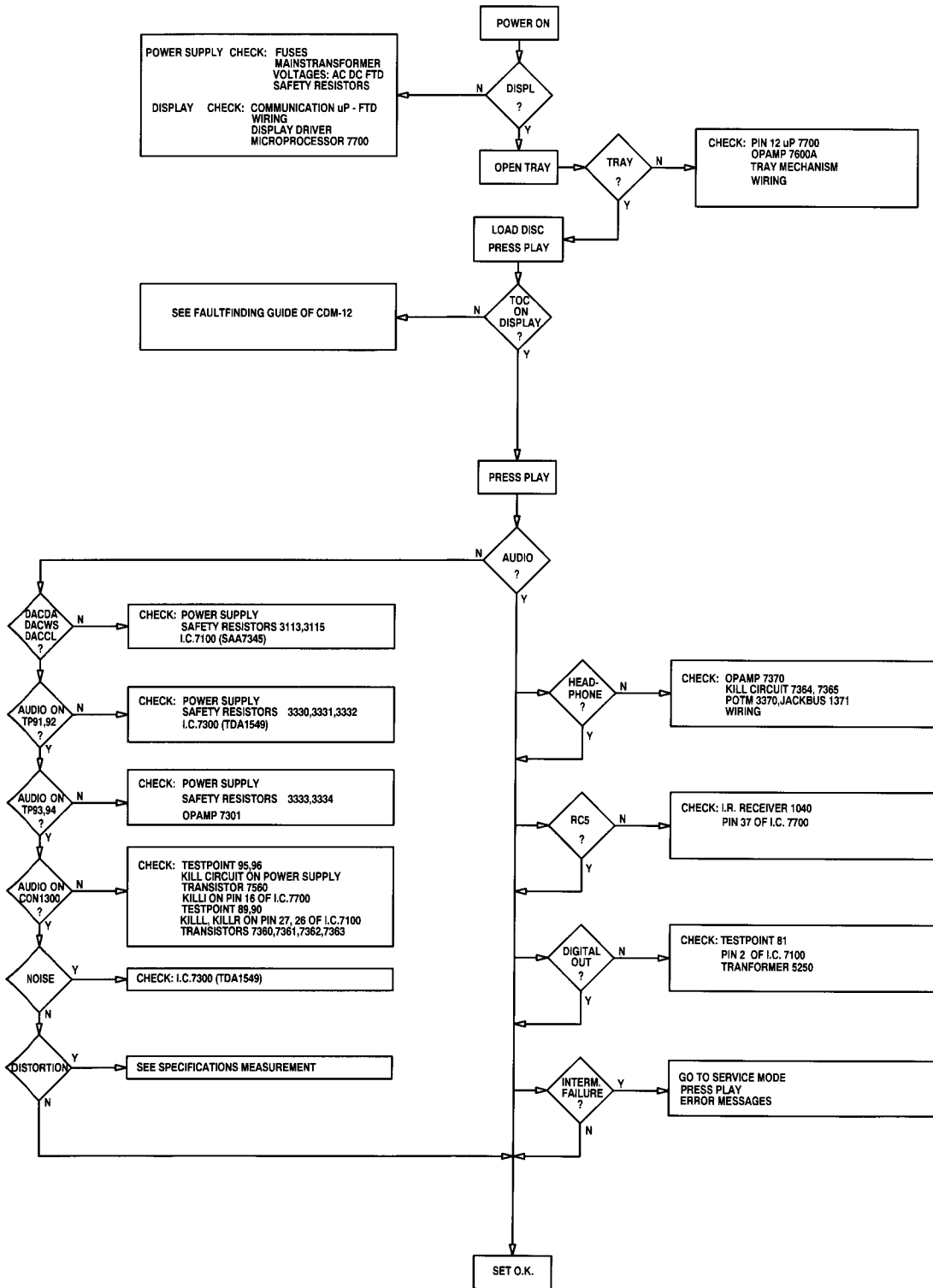
4)-V motor o.k.?
V motor < 2V: replace CDM.
V motor > 2V: check decoder part.

- 1)-Radial tracking o.k.?
No OTD (testpoint 67) activity.
- 2)-Check driver 7060A.
Supply: C2071,C2074.
Components: C2067,C2068,C2069,R3068,R3069,R3070,R3071,R3072,R3073.
- 3)-Check connections radial actuator.
Switch power off.
Measure impedance of 18 Ohm(+/-20%) between pin 1 and pin 4 of connector 1052.
- 4)-Check impedance on flex.
Power off.
Disconnect CDM-flex.
Measure impedance of 18 Ohm(+/-20%) between pin 1 and pin 4 of connector 1052.
- 5)-Test sledge.
Power on.
Invoke service mode 0.
Move sledge out (with search forward key).
Sledge moves to init position after releasing key.
Not o.k. if sledge doesn't move, doesn't reach the outer position or makes a rattling noise at the inner side.
- 6)-Check driver 7061B.
Supply: C2060,C2064.
Components: C2062,C2063,C2066,R3060,R3062,R3064,R3065,R3066,R3067.
- 7)-Check connections of sledge drive.
Power off.
Measure impedance of 11 Ohm(+/-20%) between pin 5 and pin 6 of connector 1070.
- 8)-Check sledge motor.
Remove CDM.
Measure impedance of 11 Ohm(+/-20%) between motor terminals.





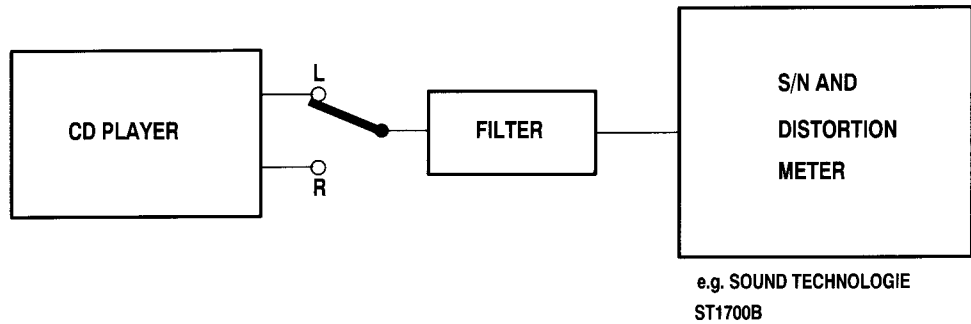
FAULTFINDING GUIDE



SPECIFICATIONS MEASUREMENT

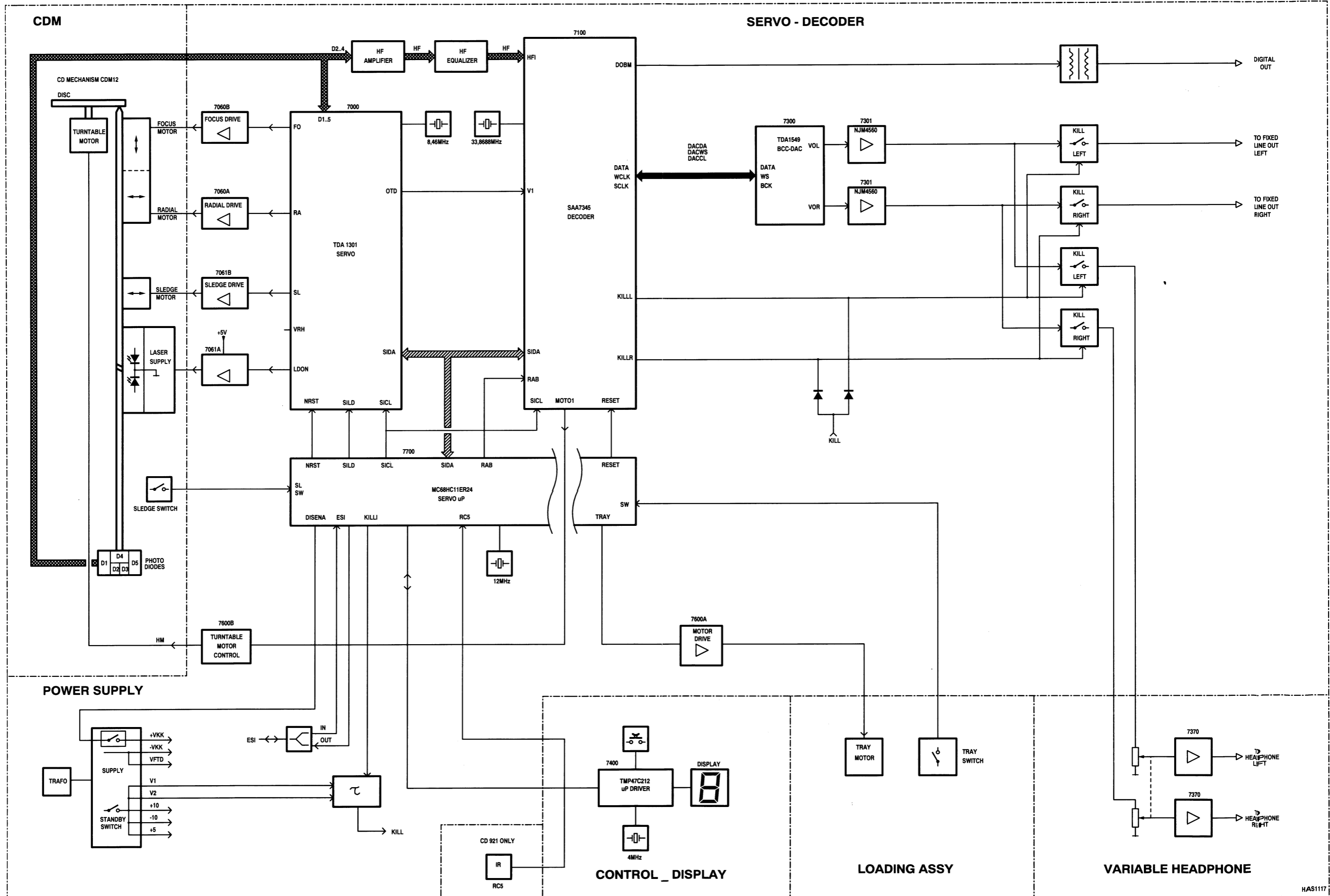
SIGNAL	AUDIO SIGNALS DISC 1	TESTPOINT	REMARKS
ANALOG OUT LEFT	TOTAL HARMONIC DISTORTION TRACKS 10 - 23	FILTER OUTPUT	SEE TECHNICAL DATA SEE DRAWING
ANALOG OUT RIGHT			
ANALOG OUT LEFT	SIGNAL-TO-NOISE RATIO TRACK 1 REFERENCE LEVEL TRACK 49	FILTER OUTPUT	SEE TECHNICAL DATA SEE DRAWING
ANALOG OUT RIGHT			

FILTER = 13TH ORDER FILTER 4822 395 30204



ABBREVIATIONS

BCK	Bit clock input of BCC-DAC TDA1549
CFLG	correction flag output
CL	interface clock input line
CL11	11.2896 MHz clock output
CL16	16.9344 MHz system clock output
CLA	4.2336 MHz microprocessor clock output
CLO	Clock output
CRIN	crystal/resonator input
CROUT	crystal/resonator output
D1-D4	Central diode input of TDA1301
D1-D5	Photodiode signals from CDM12 mechanism
DA	interface data I/O line
DACCL	Bit clock output of CD6 decoder SAA7345
DACDA	Data output of CD6 decoder SAA7345
DACWS	Word select output of CD6 decoder SAA7345
DATA	serial data output/Data input of BCC-DAC TDA1549
DOBM	biphase mark output
FO	Focus actuator output
FOC+	+Connection of focus actuator
FOC-	Ground connection of focus actuator
HF	High-Frequency signal to decoder input
HFIN	comparator signal input
HFREF	comparator common-mode input
IREF	Reference current output
ISLICE	current feedback from data slicer
LDON	Laser drive on
MISC	general purpose DAC output
MOTO1	motor output 1
MOTO2	motor output 2
NRST	Reset input
OTD	Off track detector
PORE	power-on reset enable input(active low)
R1-R2	Satellite diode signal input
RA	Radial actuator output
RAB	interface R/W and acknowledge input
RAD+	+Connection of radial actuator
RAD-	Ground connection of radial actuator
SCLK	serial bit clock output
SICL	Serial interface clock
SIDA	Serial interface data
SILD	Serial interface load
SL OUT	+Connection of sledge motor
SL	Sledge output
TEST1	test input
TEST2	test input
TS1-TS2	Test inputs
V1-5	Versatile input pins
VOL	Left channel output
VOR	Right channel output
WCLK	Word clock output
WS	Word select input of BCC-DAC TDA1549
XTLI	Oscillator input
XTLO	Oscillator output
XTLR	Oscillator reference

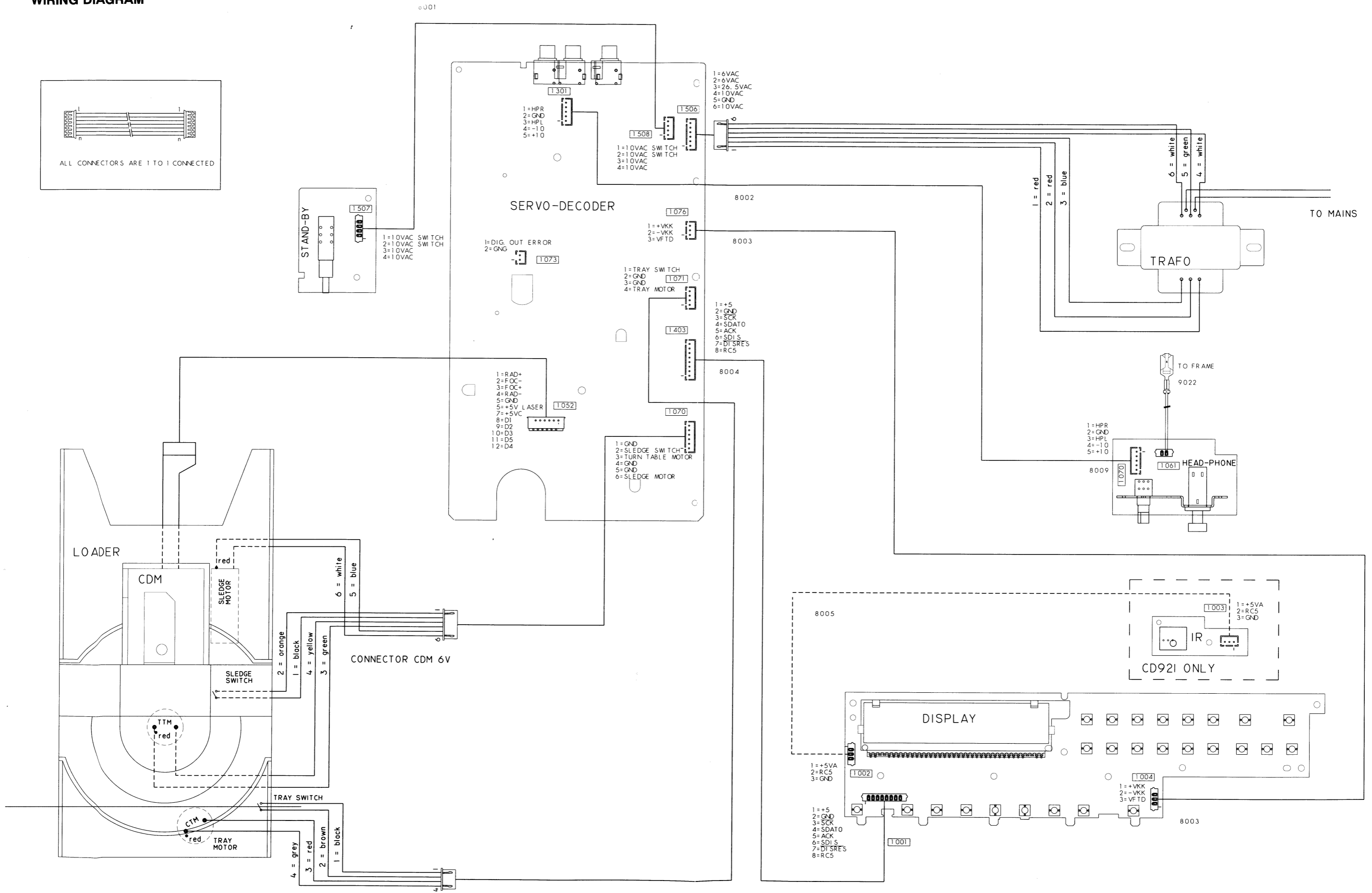
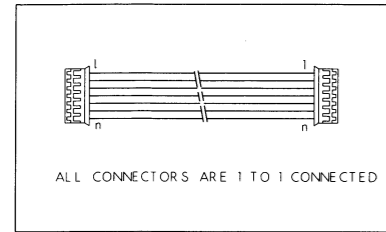


HAS1117

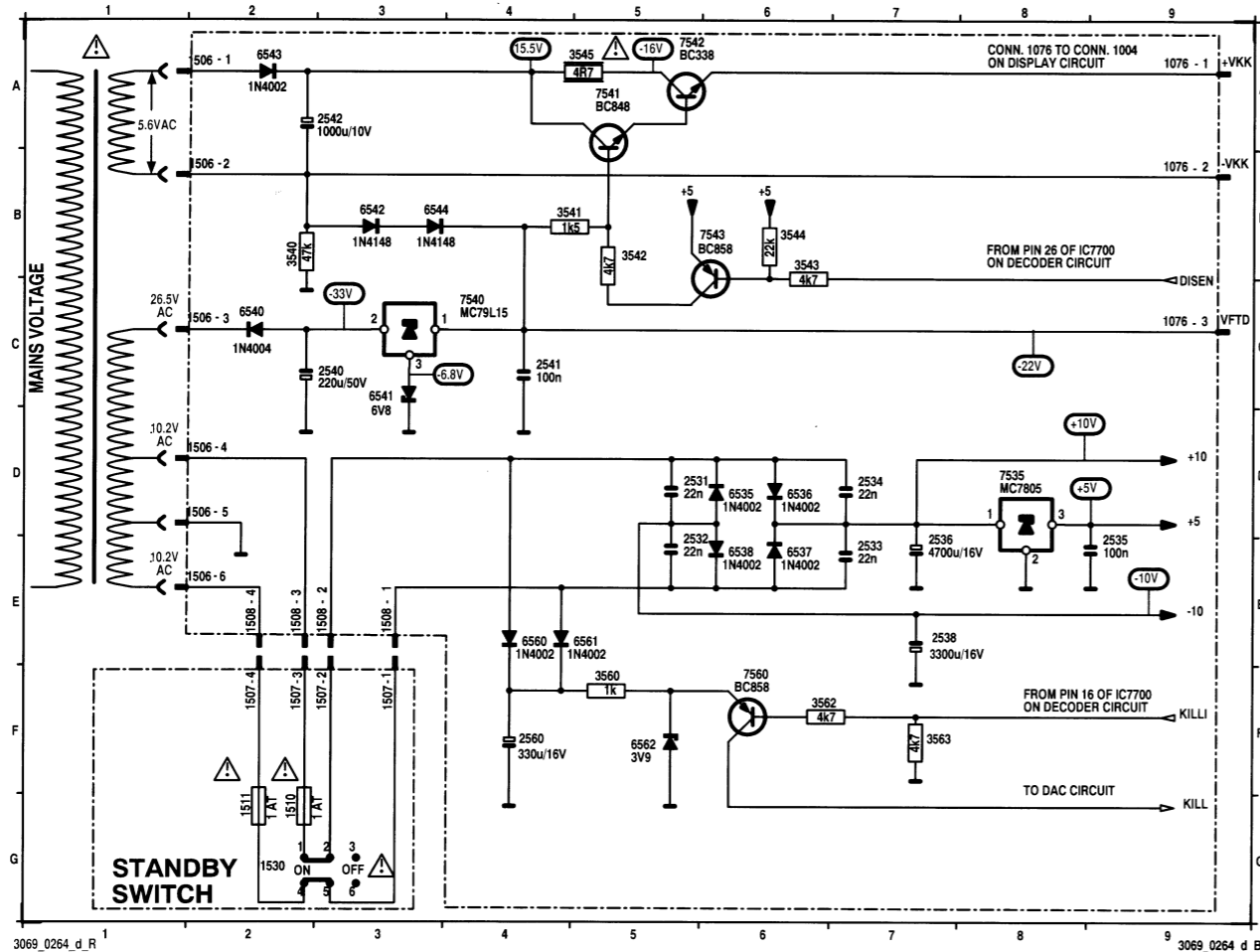
WIRING DIAGRAM

24

24



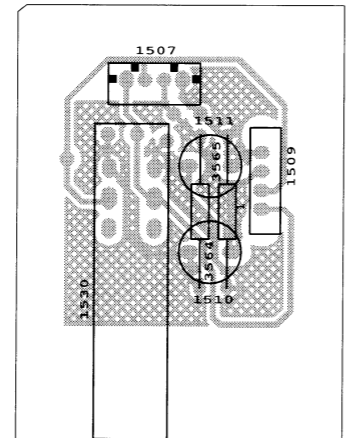
POWER SUPPLY CIRCUIT DIAGRAM



1076 A 9
1076 B 9
1076 C 9
1506 A 2
1506 B 2
1506 C 2
1506 D 2
1506 E 2
1506 F 2
1507 F 3
1507 F 3
1507 F 3
1508 E 3
1508 E 3
1508 E 3
1509 F 1
1509 F 1
1509 F 1
1510 G 2
1511 G 2
1530 D 2
2531 D 5
2532 E 7
2533 E 7
2534 D 7
2535 E 9
2536 E 7
2538 E 7
2540 C 3
2541 C 4
2542 A 3
2560 F 4
3540 B 2
3541 B 4
3542 B 5
3543 B 6
3544 B 6
3545 A 5
3560 F 5
3562 F 6
3563 F 7
6535 D 6
6536 D 6
6537 E 6
6538 E 6
6540 C 2
6541 C 3
6542 C 3
6543 A 2
6544 B 3
6560 E 4
6561 E 5
6562 F 5
7535 D 8
7540 C 4
7541 A 5
7542 A 5
7543 B 6
7560 F 6

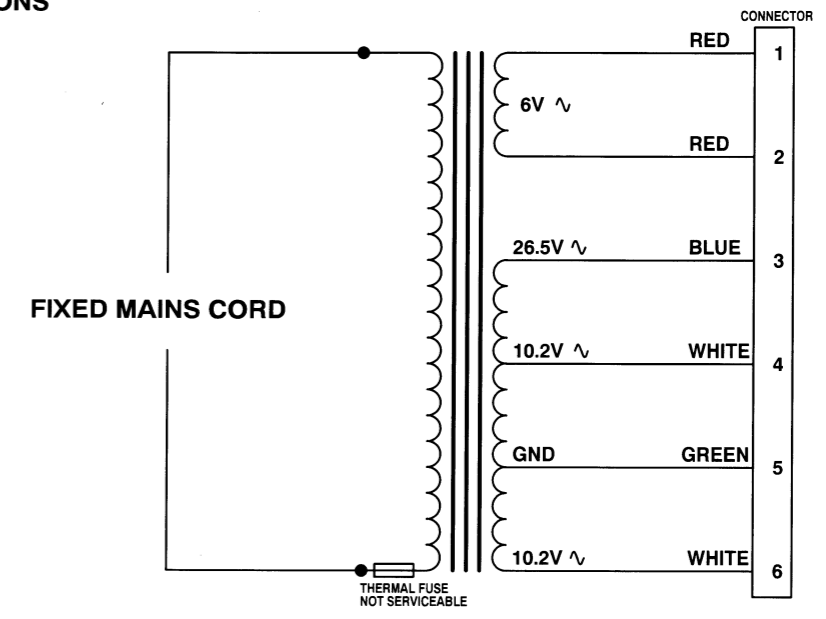
3069_0264_d_R 3069_0264_d_B

SWITCH PANEL



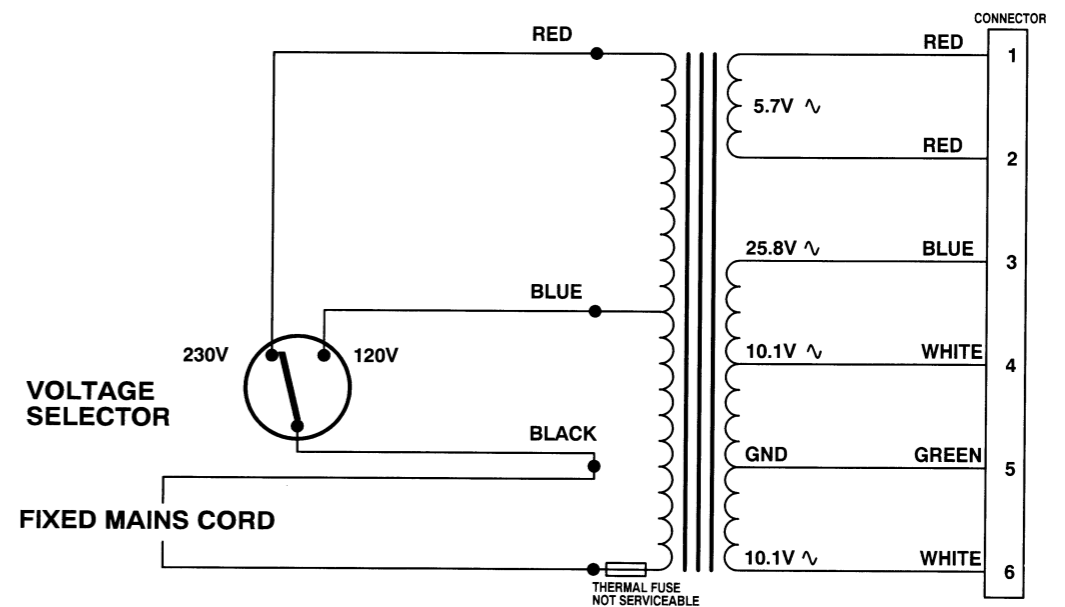
TRANSFORMER CONNECTIONS

/00/05/06/17 VERSIONS



VERSION	MAINS VOLTAGE	SERVICE CODE
/00	220V-230V	4822 146 31337
/05	240V	4822 146 31339
/06	100V	4822 146 31345
/17	117V	4822 146 31341

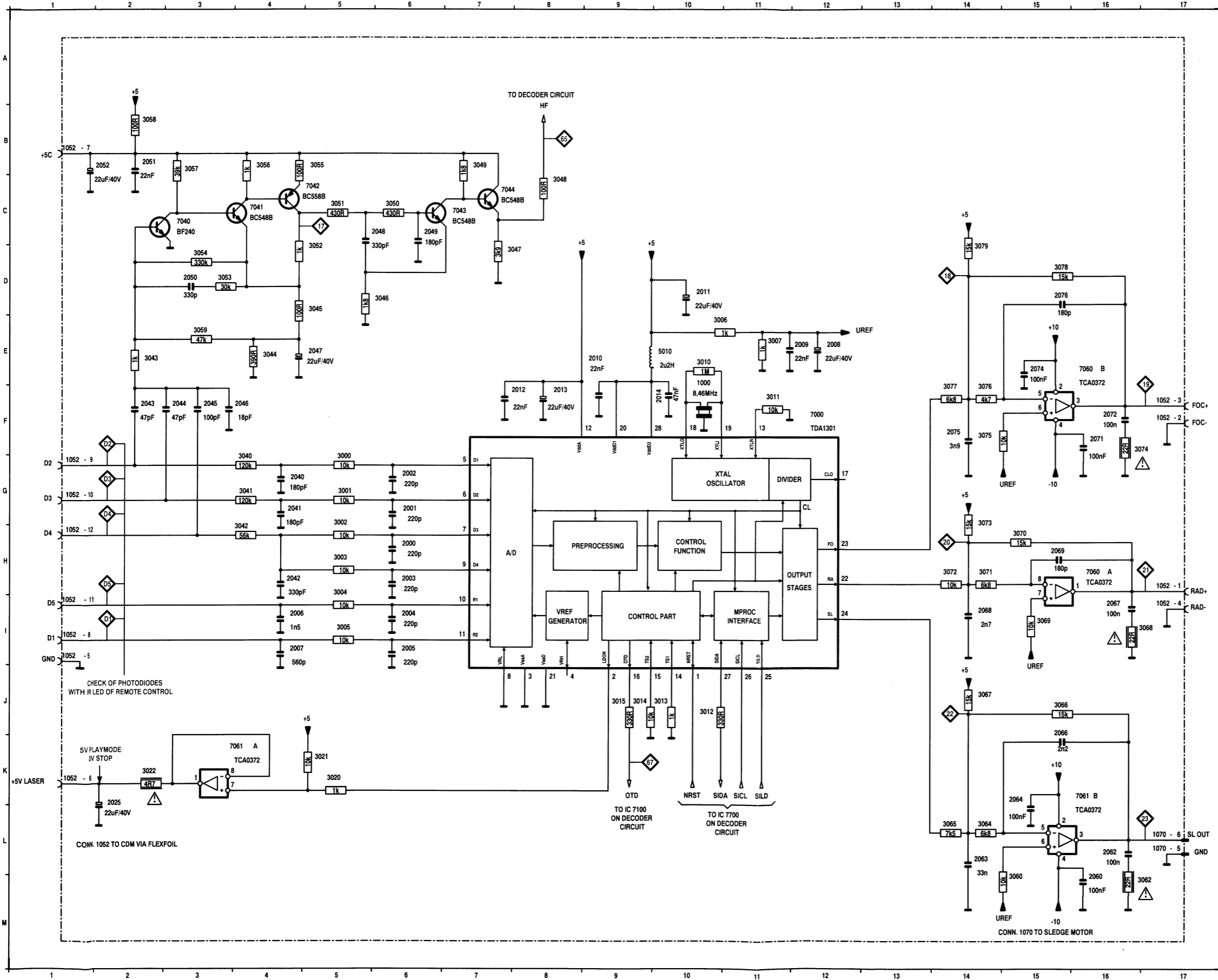
/01 VERSION



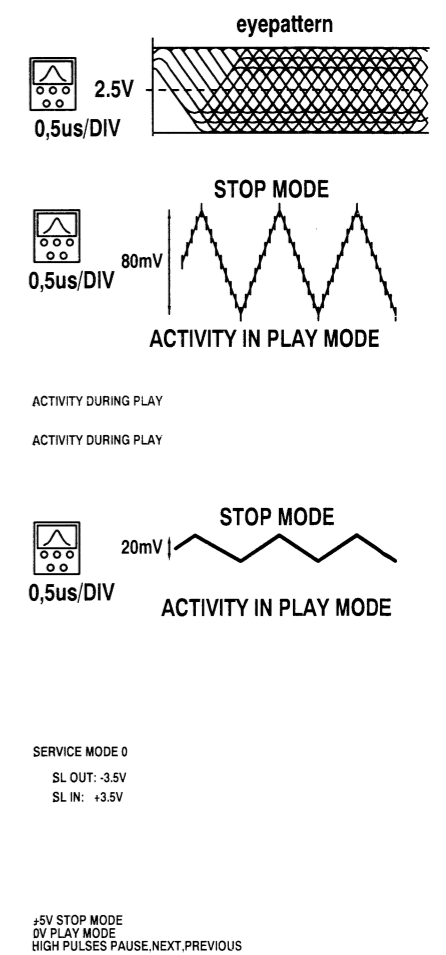
POSITION	MAINS VOLTAGE	SERVICE CODE
120V	110V-127V	4822 146 31338
230V	220V-240V	

TRANSFORMER AND VOLTAGE SELECTOR ARE ONE ASSEMBLY

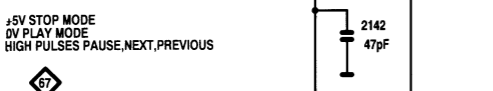
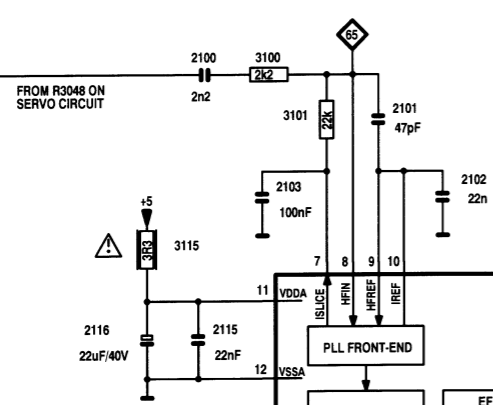
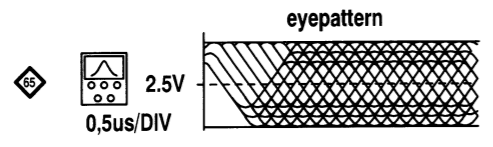
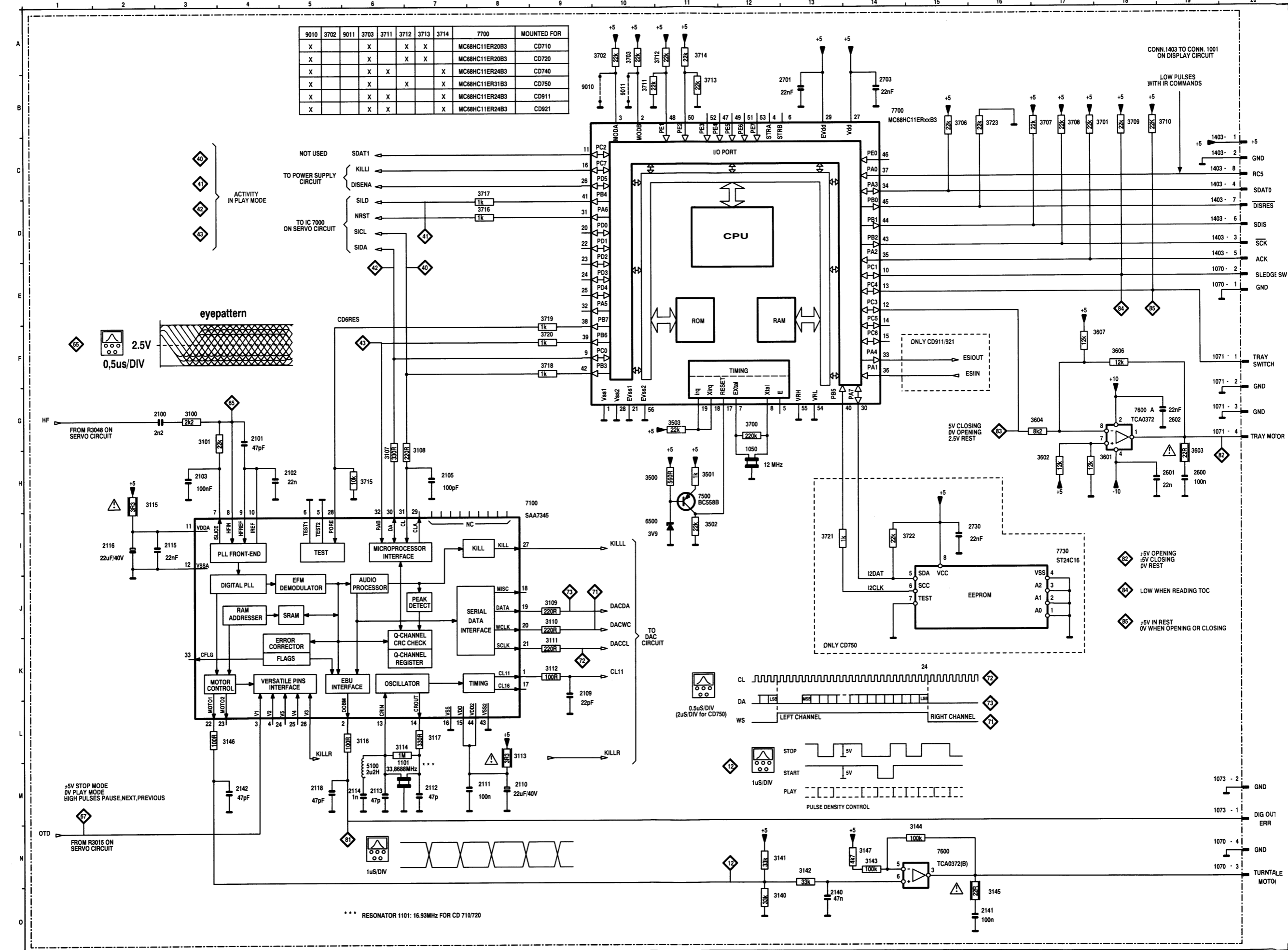
SERVO CIRCUIT DIAGRAM



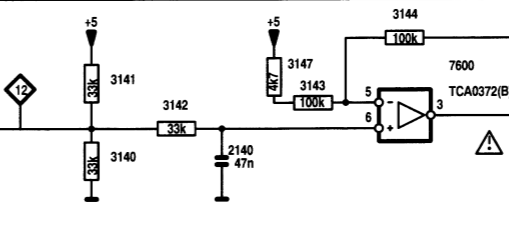
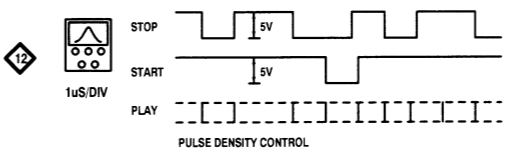
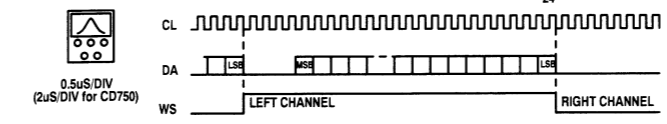
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- 1052 H17
- 1052 F17
- 1052 G17
- 1052 H17
- 1052 I1
- 1052 K1
- 1052 B1
- 1052 G1
- 1052 G1
- 1052 I1
- 1052 H1
- 1070 L17
- 2000 H6
- 2001 G6
- 2002 G6
- 2003 H6
- 2004 I6
- 2005 I6
- 2006 I4
- 2007 I4
- 2008 E12
- 2009 E12
- 2010 E9
- 2011 D10
- 2012 F8
- 2013 F8
- 2014 F10
- 2025 K2
- 2040 G4
- 2041 G4
- 2042 H4
- 2043 F2
- 2044 G4
- 2045 F3
- 2046 F4
- 2047 E5
- 2048 G6
- 2049 C6
- 2050 D3
- 2051 B2
- 2052 B2
- 2050 M16
- 2052 L16
- 2053 L14
- 2064 K15
- 2066 J15
- 2067 I16
- 2069 H14
- 2069 H15
- 2071 F16
- 2072 F16
- 2074 E15
- 2075 F14
- 2076 D15
- 3001 G5
- 3002 G5
- 3003 G5
- 3004 H5
- 3005 I5
- 3006 E10
- 3010 E10
- 3011 F11
- 3012 I10
- 3013 J10
- 3014 J9
- 3015 J9
- 3020 G5
- 3021 K5
- 3022 K2
- 3040 G4
- 3041 G4
- 3042 H4
- 3043 E2
- 3044 E4
- 3045 D5
- 3046 D6
- 3047 D8
- 3048 C8
- 3048 B7
- 3050 C5
- 3051 C5
- 3052 D5
- 3053 D3
- 3054 D3
- 3055 B5
- 3056 B4
- 3057 B3
- 3058 B2
- 3059 E3
- 3060 M15
- 3062 M17
- 3064 L14
- 3065 L14
- 3066 J15
- 3067 J14
- 3068 I17
- 3069 H15
- 3070 H15
- 3071 H14
- 3072 H14
- 3073 G14
- 3074 F17
- 3075 F14
- 3076 F14
- 3077 F14
- 3078 D15
- 3079 D14
- 5010 E10
- 7000 F12
- 7040 C3
- 7041 C4
- 7042 C5
- 7043 C7
- 7044 C7
- 7060 H15
- 7061 E16
- 7061 K4
- 7061 K16



DECODER CIRCUIT DIAGRAM



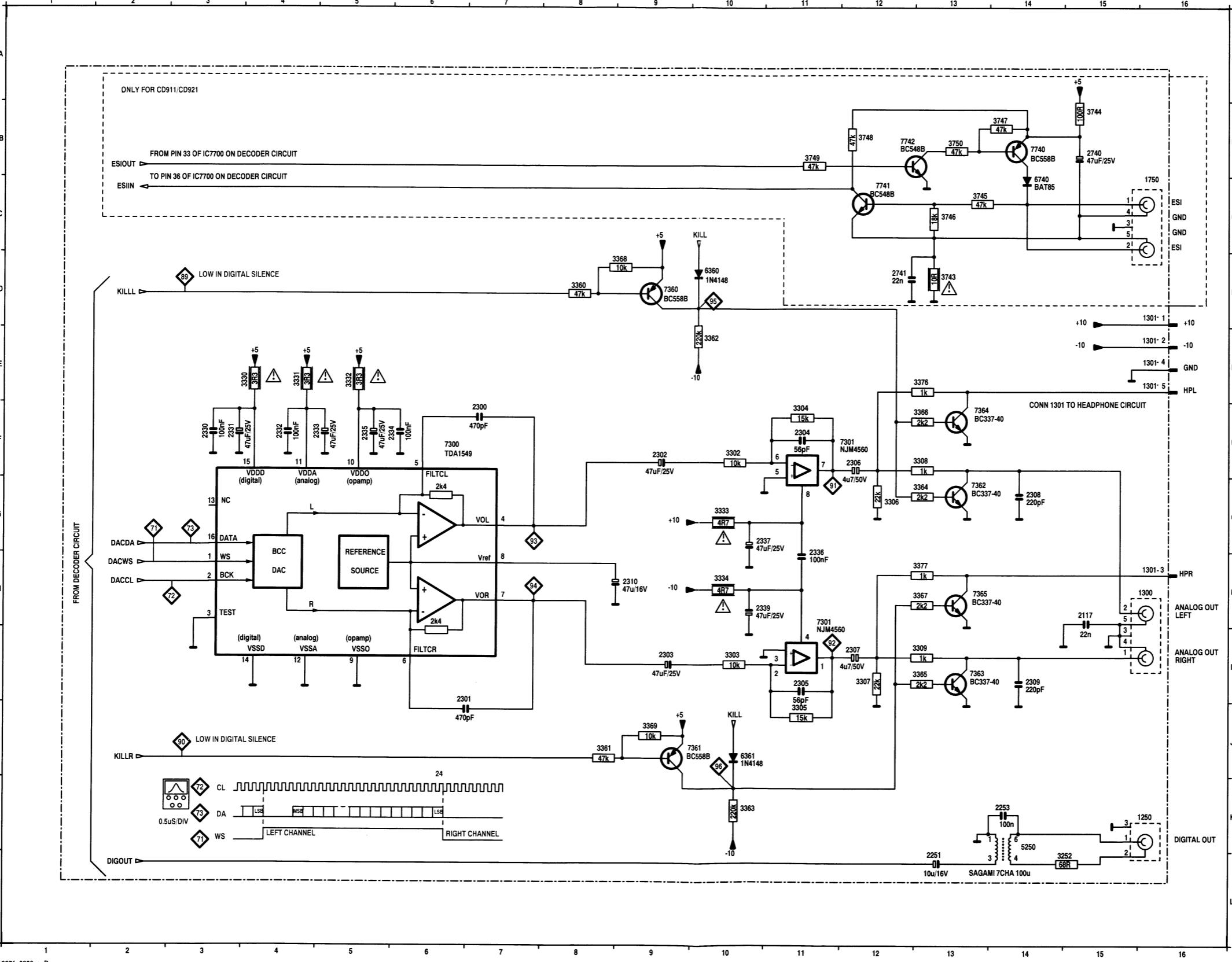
*** RESONATOR 1101: 16.93MHz FOR CD 710/720



- 82 +5V OPENING
-5V CLOSING
OV REST
- 84 LOW WHEN READING TOC
- 85 +5V IN REST
OV WHEN OPENING OR CLOSING

- 1050 H12
- 1070 E19
- 1070 N19
- 1070 M19
- 1071 F19
- 1071 G19
- 1071 M19
- 1073 M19
- 1101 M 6
- 1403 C19
- 1403 D19
- 1403 D19
- 1403 D19
- 1403 C19
- 2100 G 2
- 2101 G 4
- 2102 H 5
- 2103 H 3
- 2105 H 7
- 2109 K 8
- 2110 K 8
- 2111 M 8
- 2112 M 7
- 2115 M 6
- 2114 M 6
- 2115 I 3
- 2116 I 2
- 2118 M 5
- 2140 O13
- 2141 O16
- 2142 M 4
- 2600 H19
- 2601 H19
- 2602 G19
- 2701 B13
- 2703 B14
- 2730 I16
- 3100 G 3
- 3101 G 3
- 3107 H 6
- 3108 H 7
- 3109 J 9
- 3110 J 9
- 3111 K 9
- 3115 L 8
- 3115 L 8
- 3114 L 6
- 3115 H 2
- 3116 L 6
- 3117 L 7
- 3140 O12
- 3141 N12
- 3142 N13
- 3143 N14
- 3144 N15
- 3145 O16
- 3146 L 4
- 3147 N14
- 3500 H10
- 3501 H11
- 3502 I11
- 3503 G11
- 3501 H18
- 3602 H17
- 3603 H19
- 3604 G16
- 3606 F18
- 3607 F17
- 3700 G12
- 3701 B18
- 3702 A10
- 3703 A10
- 3706 B15
- 3707 B17
- 3708 B17
- 3709 B18
- 3710 B19
- 3711 B10
- 3712 A11
- 3713 B11
- 3714 A11
- 3715 H 6
- 3716 D 8
- 3717 C 8
- 3718 F 9
- 3719 E 9
- 3720 F 9
- 3721 I13
- 3722 I15
- 3723 B16
- 5100 M 6
- 6500 I10
- 7100 H 8
- 7500 H11
- 7600 G18
- 7600 N15
- 7700 B14
- 7730 I17
- 9010 B 9
- 9011 B10

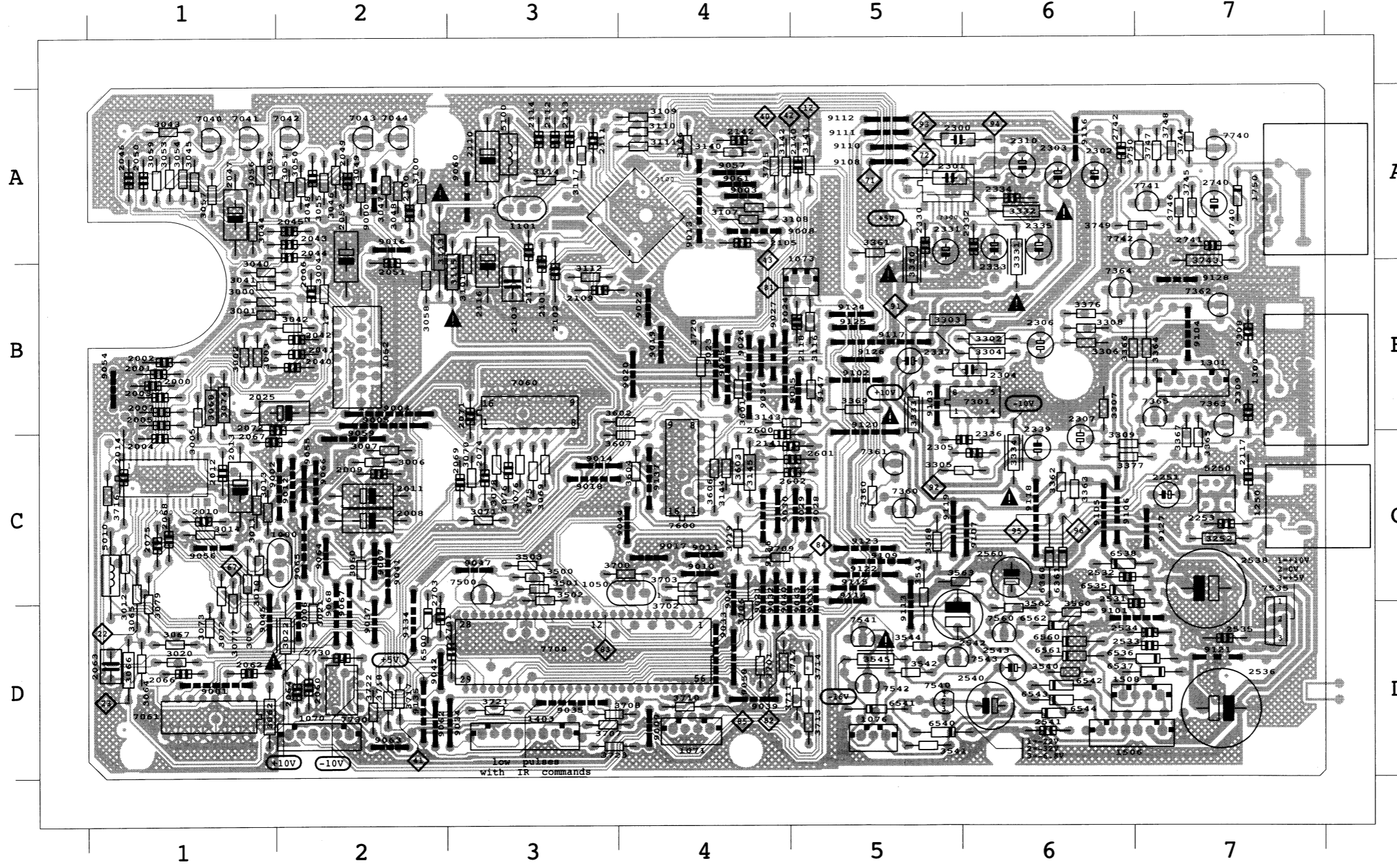
DAC CIRCUIT DIAGRAM



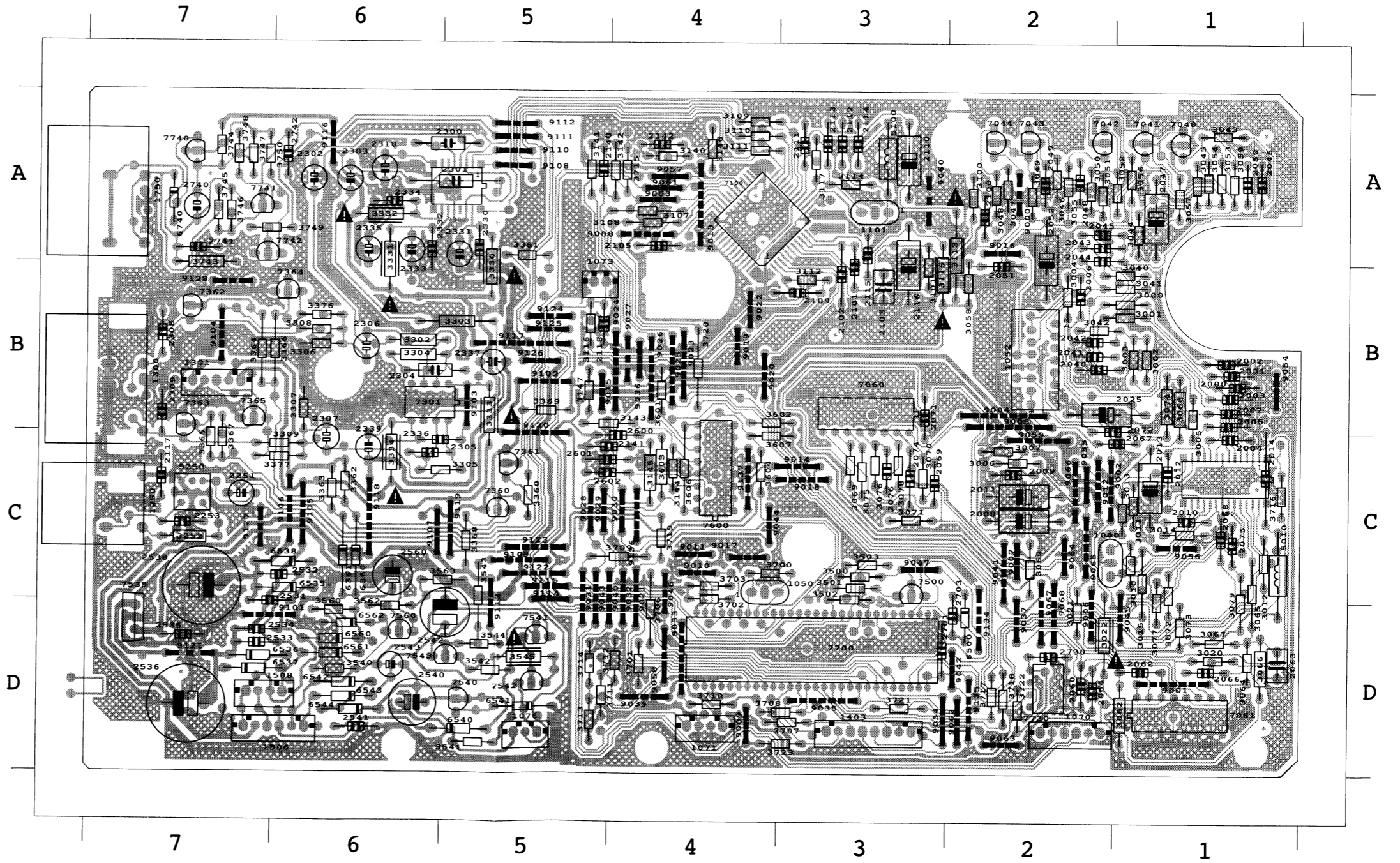
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- 1300 H15
- 1301 D16
- 1301 E16
- 1301 H16
- 1301 E16
- 1301 E16
- 1750 C16
- 2117 H15
- 2251 L13
- 2253 K14
- 2300 F7
- 2301 I6
- 2302 F9
- 2303 I9
- 2304 F11
- 2305 I11
- 2306 F12
- 2307 I12
- 2308 G14
- 2309 I14
- 2310 H9
- 2330 F3
- 2331 F3
- 2332 F4
- 2333 F5
- 2334 F6
- 2335 F5
- 2336 H10
- 2337 G10
- 2339 H10
- 2740 B15
- 2741 D12
- 3252 L15
- 3302 F10
- 3303 I10
- 3304 F11
- 3305 J11
- 3306 G12
- 3307 I12
- 3308 F13
- 3309 I13
- 3330 E4
- 3331 E4
- 3332 E5
- 3333 G10
- 3334 H10
- 3360 D8
- 3361 J8
- 3362 E10
- 3363 K10
- 3364 G13
- 3365 I13
- 3366 F13
- 3367 H13
- 3368 D9
- 3369 I9
- 3376 E13
- 3377 H13
- 3743 D13
- 3744 B15
- 3745 C13
- 3746 C13
- 3747 B14
- 3748 B12
- 3749 B11
- 3750 B13
- 5250 K14
- 6360 D10
- 6361 J10
- 6740 C14
- 7300 F6
- 7301 H11
- 7301 F11
- 7360 D9
- 7361 J9
- 7362 G13
- 7363 I13
- 7364 F13
- 7365 H13
- 7740 B14
- 7742 B12

MAIN PANEL COMPONENT SIDE

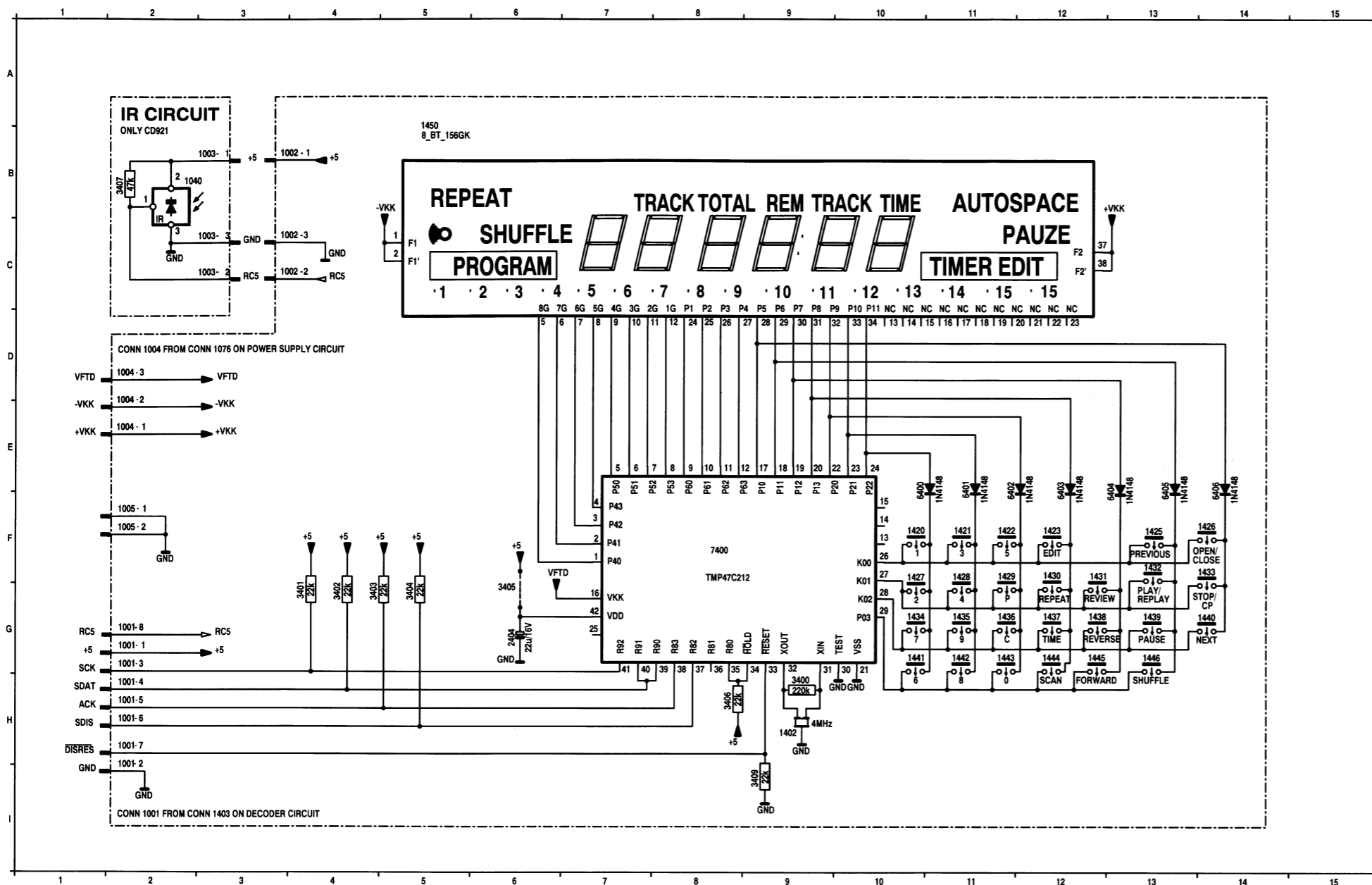
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1250 C 7	2309 B 7	2540 D 6	3331 A 6	3542 D 5	6535 C 6	7363 B 7	9107 C 6	9125 B 5	2005 B 1	2047 A 1	2076 C 2	2600 C 4	3014 C 1	3053 A 1	3073 D 1	3116 B 5	3606 C 4	3718 D 2	7500 C 3	9014 C 3	9032 C 4	9057 A 4
1300 B 7	2310 A 6	2541 D 6	3332 A 6	3543 C 5	6536 D 7	7364 B 6	9108 A 5	9126 B 5	2006 B 2	2048 A 2	2100 A 2	2601 C 5	3015 C 1	3054 A 1	3074 B 1	3117 A 3	3607 C 4	3719 C 4	7600 C 4	9015 B 5	9033 D 4	9058 D 4
1301 B 7	2330 A 5	2542 D 5	3333 B 5	3544 D 5	6537 D 7	7365 B 7	9109 C 5	9127 C 7	2007 B 1	2049 A 2	2101 B 3	2602 C 5	3020 D 1	3055 A 2	3075 C 3	3140 A 4	3700 C 4	3720 B 4	7700 D 3	9016 A 2	9034 D 3	9059 C 2
1506 D 6	2331 A 5	2543 D 6	3334 C 6	3545 D 5	6538 C 6	7365 D 7	9110 A 5	9128 B 7	2008 C 2	2050 A 1	2102 B 3	2701 D 3	3021 D 2	3056 A 1	3076 C 3	3141 A 5	3701 D 4	3721 D 3	7730 D 2	9017 C 4	9035 D 3	9060 A 3
1508 D 7	2332 A 6	2560 C 6	3360 C 5	3560 D 6	6540 D 5	7540 D 5	9111 A 5	-----	2009 C 2	2051 B 2	2103 B 3	2703 D 2	3022 D 2	3057 A 1	3077 C 1	3142 A 4	3702 C 4	3722 D 2	9000 A 2	9018 C 3	9036 B 4	9061 A 4
1750 A 7	2333 A 6	2740 A 7	3361 A 5	3562 D 6	6541 D 5	7541 D 5	9112 A 5	1000 C 2	2010 C 1	2052 A 2	2105 A 4	2730 D 2	3040 B 1	3058 B 2	3078 C 3	3143 B 5	3703 C 4	3723 D 3	9001 D 1	9019 B 4	9037 D 2	9062 D 2
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9061 A 4	9036 B 4	9018 C 3	9000 A 2	3722 D 2	3702 C 4	3142 A 4	3077 C 1	3057 A 1	3022 D 2	2703 D 2	2103 B 3	2051 B 2	2009 C 2	---	9111 A 5	7540 D 5	6540 D 5	3560 D 6	3360 C 5	2560 C 6	2332 A 6	1508 D 7
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9065 C 2	9041 C 2	9022 B 4	9004 B 2	6500 D 2	3708 D 3	3146 A 4	3101 B 3	3062 D 1	3043 A 1	3002 B 1	2111 A 3	2063 D 1	2013 C 1	1070 D 2	9115 C 5	7560 D 6	6544 D 6	3744 A 7	3364 B 7	3252 C 7	2336 C 6	2253 C 7
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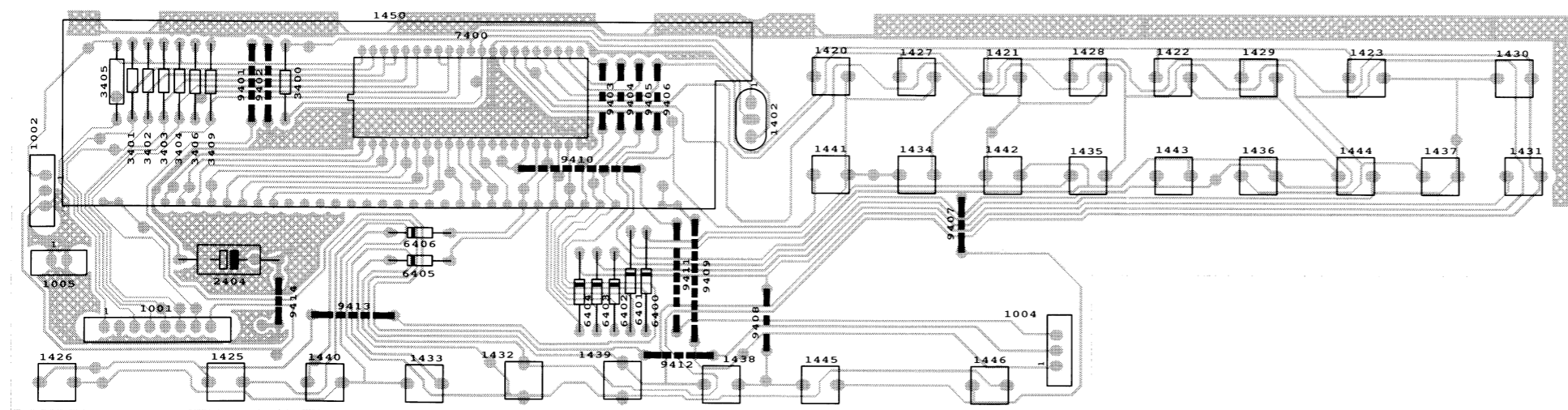


CONTROL & DISPLAY CIRCUIT DIAGRAM

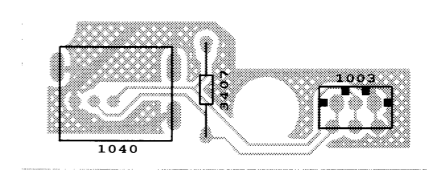


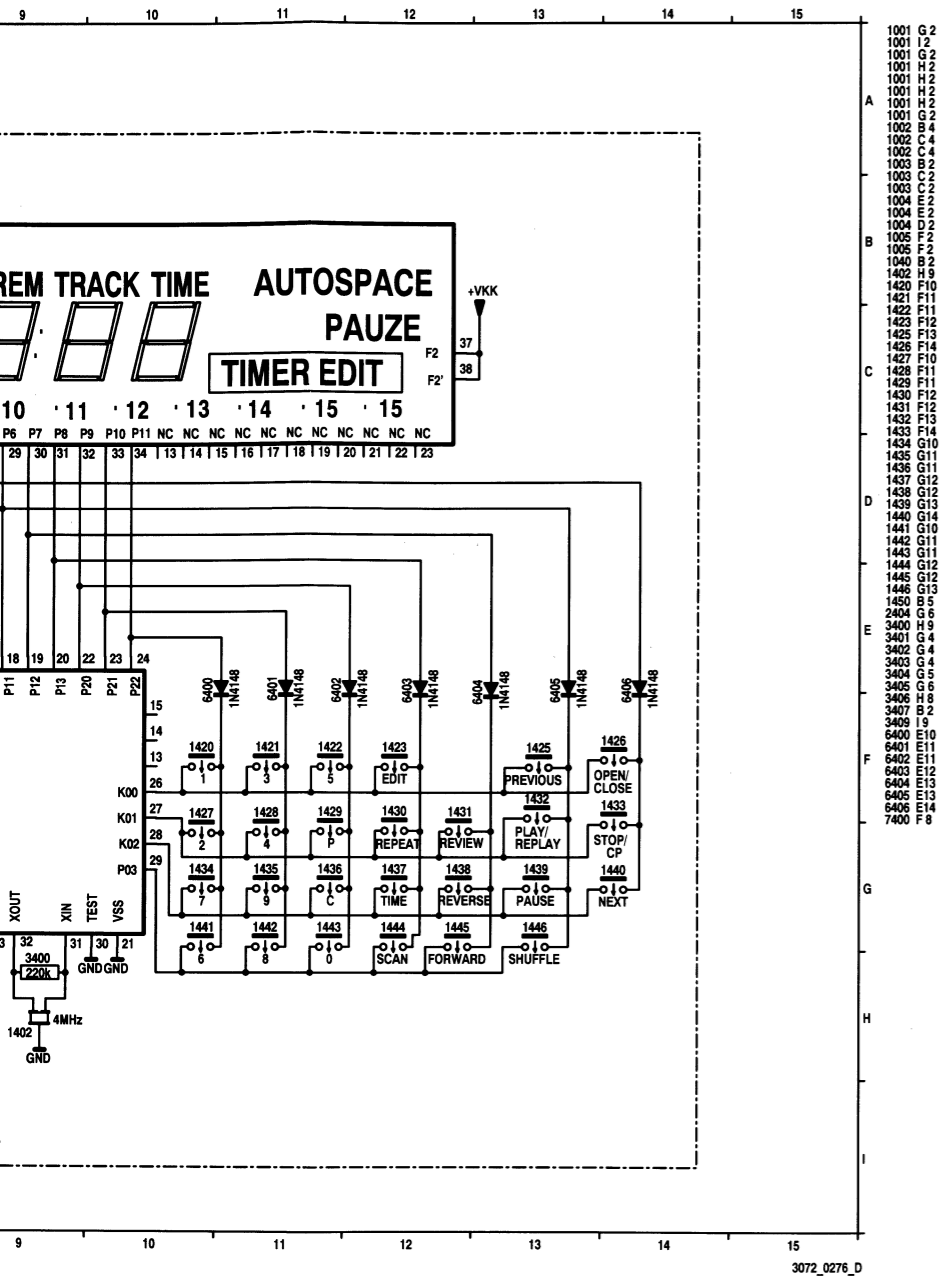
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- 1437 G12
- 1438 G12
- 1439 G13
- 1440 G14
- 1441 G10
- 1442 G11
- 1443 G11
- 1444 G12
- 1445 G12
- 1446 G13
- 1450 B5
- 2404 G6
- 3400 H9
- 3401 G4
- 3402 G4
- 3403 G4
- 3404 G5
- 3405 G6
- 3406 H8
- 3407 B2
- 3409 I9
- 6400 E10
- 6401 E11
- 6402 E11
- 6403 E12
- 6404 E13
- 6405 E13
- 6406 E14
- 7400 F8

CONTROL & DISPLAY PANEL



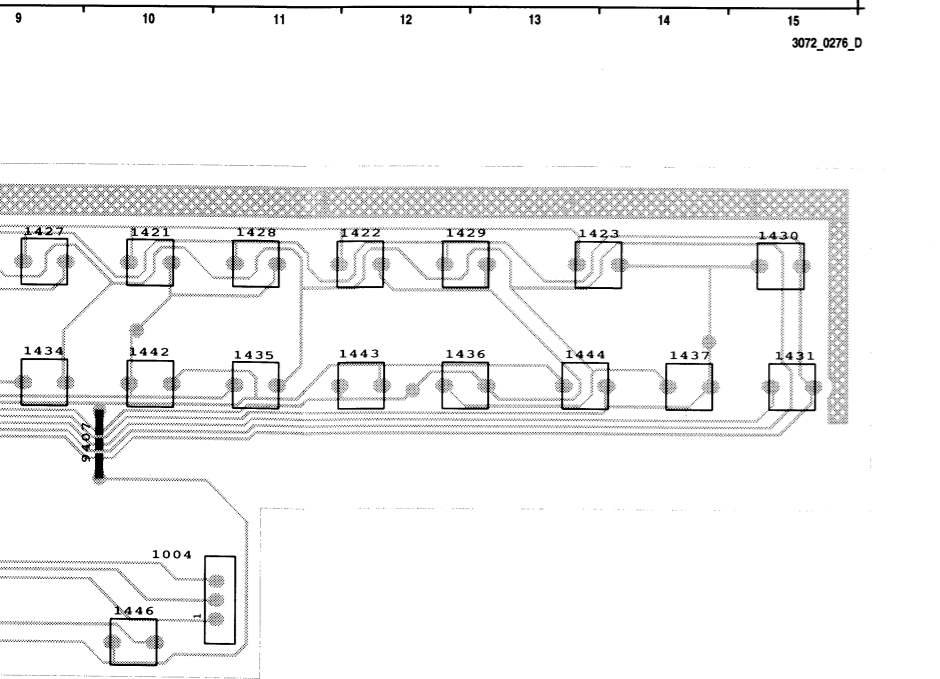
IR PANEL



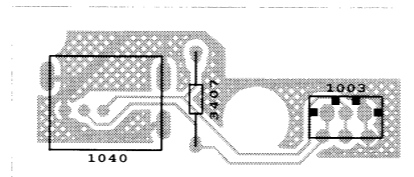


- 1001 G 2
- 1001 I 2
- 1001 G 2
- 1001 H 2
- 1001 H 2
- 1001 H 2
- 1001 H 2
- 1001 G 2
- 1002 B 4
- 1002 C 4
- 1002 C 4
- 1003 B 2
- 1003 C 2
- 1003 C 2
- 1004 E 2
- 1004 E 2
- 1004 D 2
- 1005 F 2
- 1040 B 2
- 1420 F 10
- 1421 F 11
- 1422 F 11
- 1423 F 12
- 1425 F 13
- 1426 F 14
- 1427 F 10
- 1428 F 11
- 1429 F 11
- 1430 F 12
- 1431 F 12
- 1432 F 13
- 1433 F 14
- 1434 G 10
- 1435 G 11
- 1436 G 11
- 1437 G 12
- 1438 G 12
- 1439 G 13
- 1440 G 14
- 1441 G 10
- 1442 G 11
- 1443 G 11
- 1444 G 12
- 1446 G 13
- 1450 B 5
- 2404 G 6
- 3400 H 9
- 3401 G 4
- 3402 G 4
- 3403 G 4
- 3404 G 5
- 3405 G 6
- 3406 H 8
- 3407 B 2
- 3409 I 9
- 6400 E 10
- 6401 E 11
- 6402 E 11
- 6403 E 12
- 6404 E 13
- 6405 E 13
- 6406 E 14
- 7400 F 8

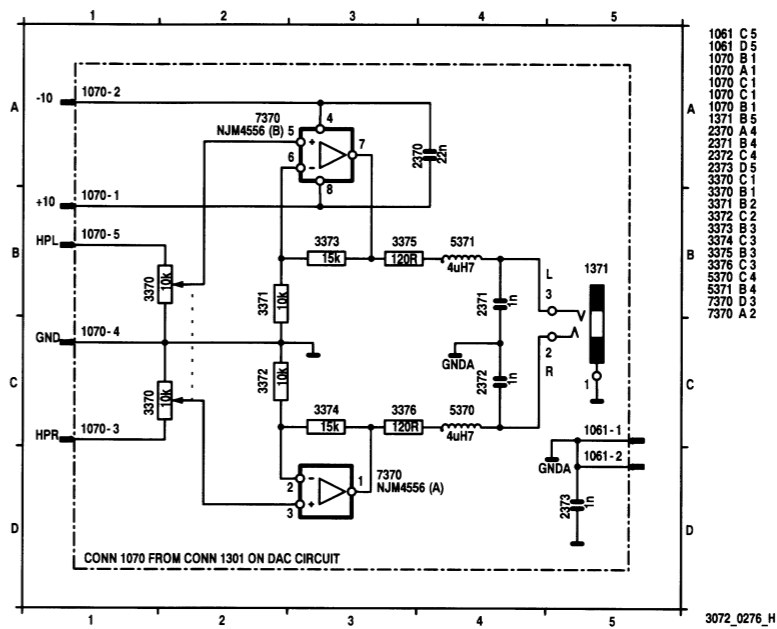
3072_0276_D



IR PANEL



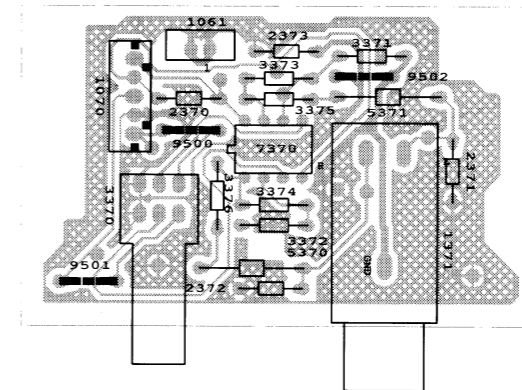
HEADPHONE CIRCUIT DIAGRAM



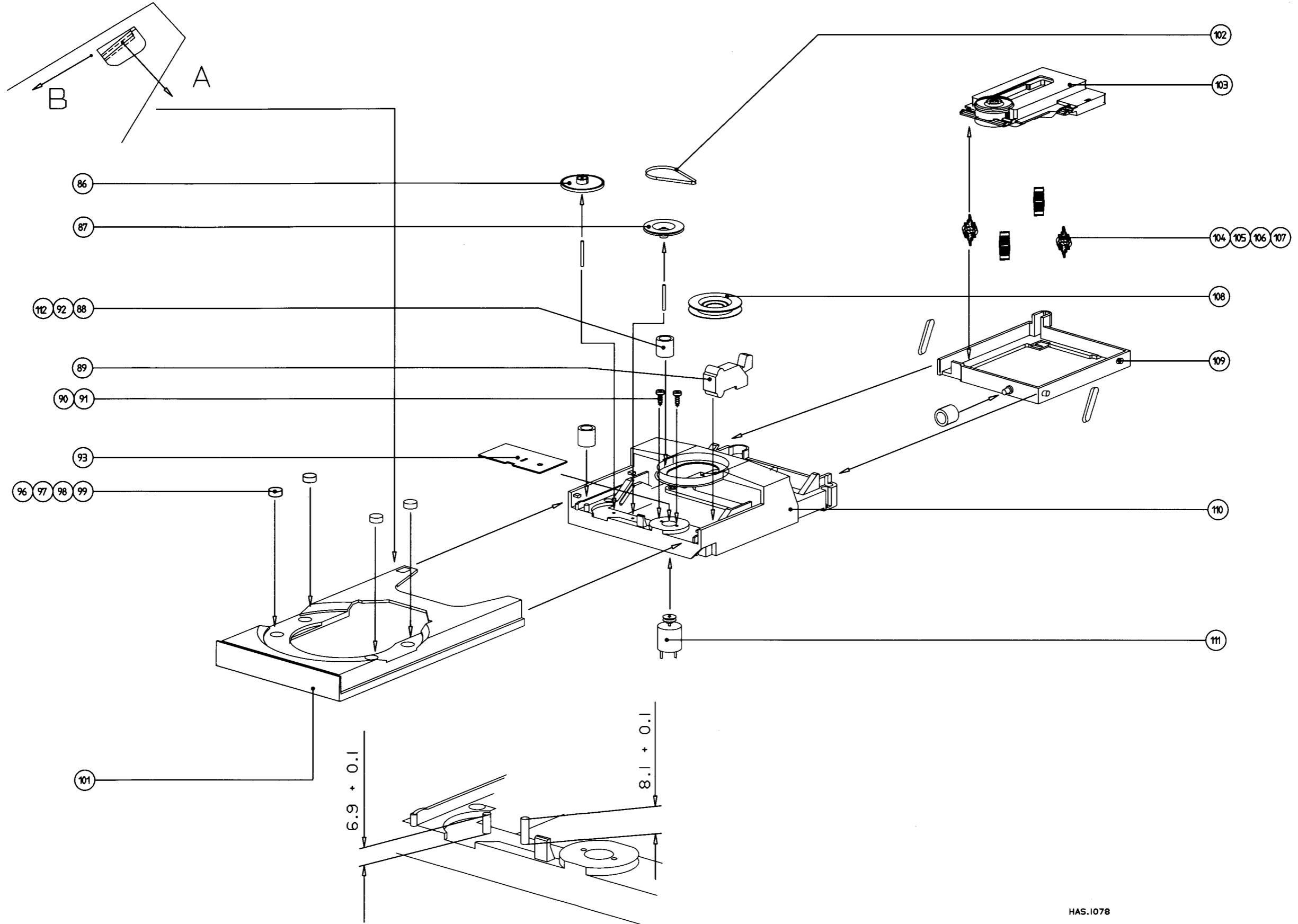
- 1061 C 5
- 1061 D 5
- 1070 B 1
- 1070 A 1
- 1070 C 1
- 1070 B 1
- 1070 C 1
- 1371 B 5
- 2370 A 4
- 2371 B 4
- 2372 C 4
- 2373 D 5
- 3370 C 1
- 3370 B 1
- 3371 B 2
- 3372 C 2
- 3373 B 3
- 3374 C 3
- 3375 B 3
- 3376 C 3
- 5370 C 4
- 5371 B 4
- 7370 D 3
- 7370 A 2

3072_0276_H

HEADPHONE PANEL



DETAIL I



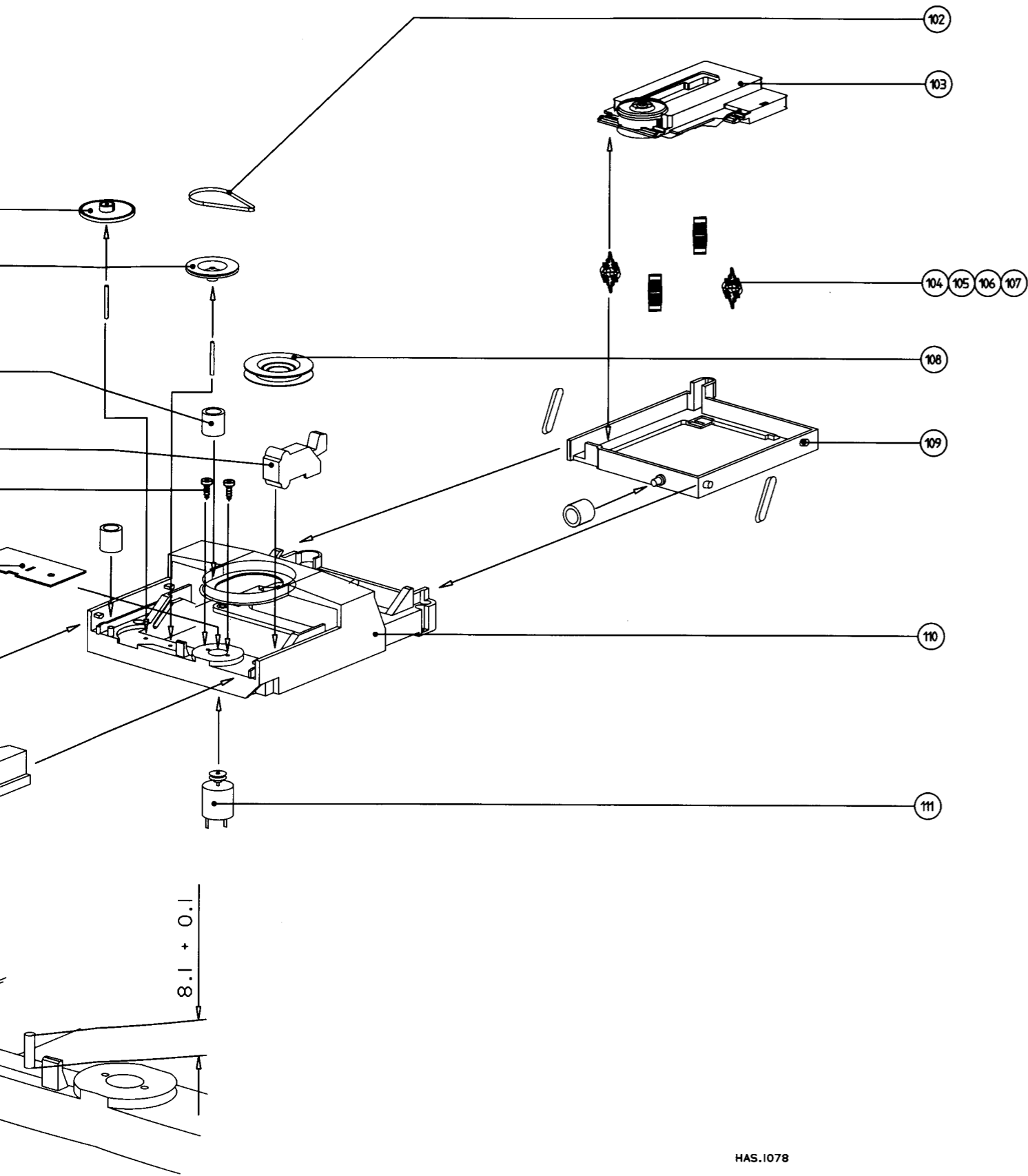
PARTS

- 86
- 87
- 88,92
- 89
- 93
- 96,97
- 101
- 102
- 103
- 104,10
- 108
- 109
- 110
- 110
- 111

Screws

- 90,91

HAS.1078



PARTS LIST LOADER

86	4822 528 81464	DRIVE PINION
87	4822 528 81465	PULLEY
88,92,112	4822 325 60379	DAMPING GROMMET
89	4822 276 13222	SWITCH
93	4822 444 60816	COVER PLATE
96,97,98,99	4822 325 80511	ORNAMENTAL TULE
101	4822 444 50679	SLIDE
102	4822 358 31168	BELT
103	4822 691 30278	CDM12 MECHANISM
104,105,106,107	4822 325 50215	SUSPENSION
108	4822 402 61412	CLAMPER ASSY
109	4822 464 50895	SUBCHASSIS
110	4822 464 50678	CHASSIS (CD710/CD720)
110	4822 464 50896	CHASSIS (CD740/CD750/CD911/CD921)
111	4822 361 21492	MOTOR

Screws

90,91	M 2.2 x 4
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MECHANICAL PARTS LIST

1	4822 444 40722	FRONT CD921
1	4822 444 40725	FRONT CD911
15	4822 410 63097	BUTTON UNIT(NOSE)
16	4822 410 63098	BUTTON UNIT(10-KEY)
22	4822 450 61843	WINDOW
23	4822 450 61831	IR WINDOW(ONLY CD921)
52	4822 535 93462	POWER ROD
53	4822 410 61705	VOLUME KNOB
71	4822 444 40531	TRAY FRONT
151	4822 444 60975	COVER
251	4822 462 41888	FOOT
252	4822 462 41888	FOOT
253	4822 462 41888	FOOT
254	4822 462 41888	FOOT
255	4822 462 41887	FELT
256	4822 462 41887	FELT
257	4822 462 41887	FELT
258	4822 462 41887	FELT
283	▲ 4822 532 60948	BUSHING
308	4822 321 22832	CINCH CABLE SBC1072
340	4822 736 21987	INSTRUCTIONS FOR USE CD921
340	4822 736 21999	INSTRUCTIONS FOR USE CD911
365	4822 218 10538	REMOTE CONTROL RD6843(ONLY CD921)

Not mentioned parts are only available during production period on special request.

Screws

Taptite M3x6:	6,7,8 83,84,85 171,172,173,174 175,176, 200,201 211,212 269,270,271,272
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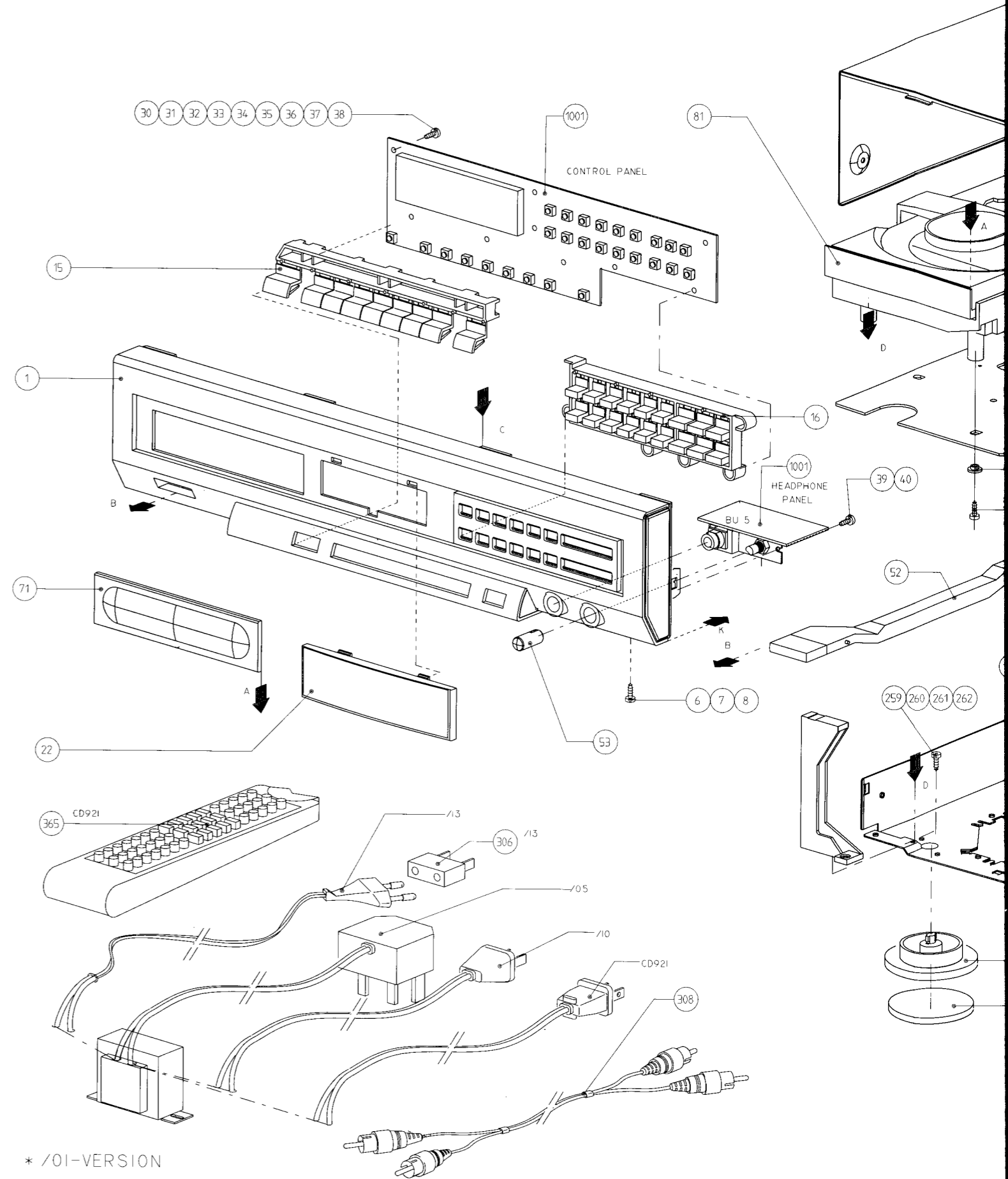
Plastite M3x10:	208,209,210 268,274,275 259,260,261,262
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Plastite M3x12:	30,31,32,33,34,35,36,37,38 39,40
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Taptite M3x16: 202

Taptite M3x28: 204,205

EXPLODED VIEW

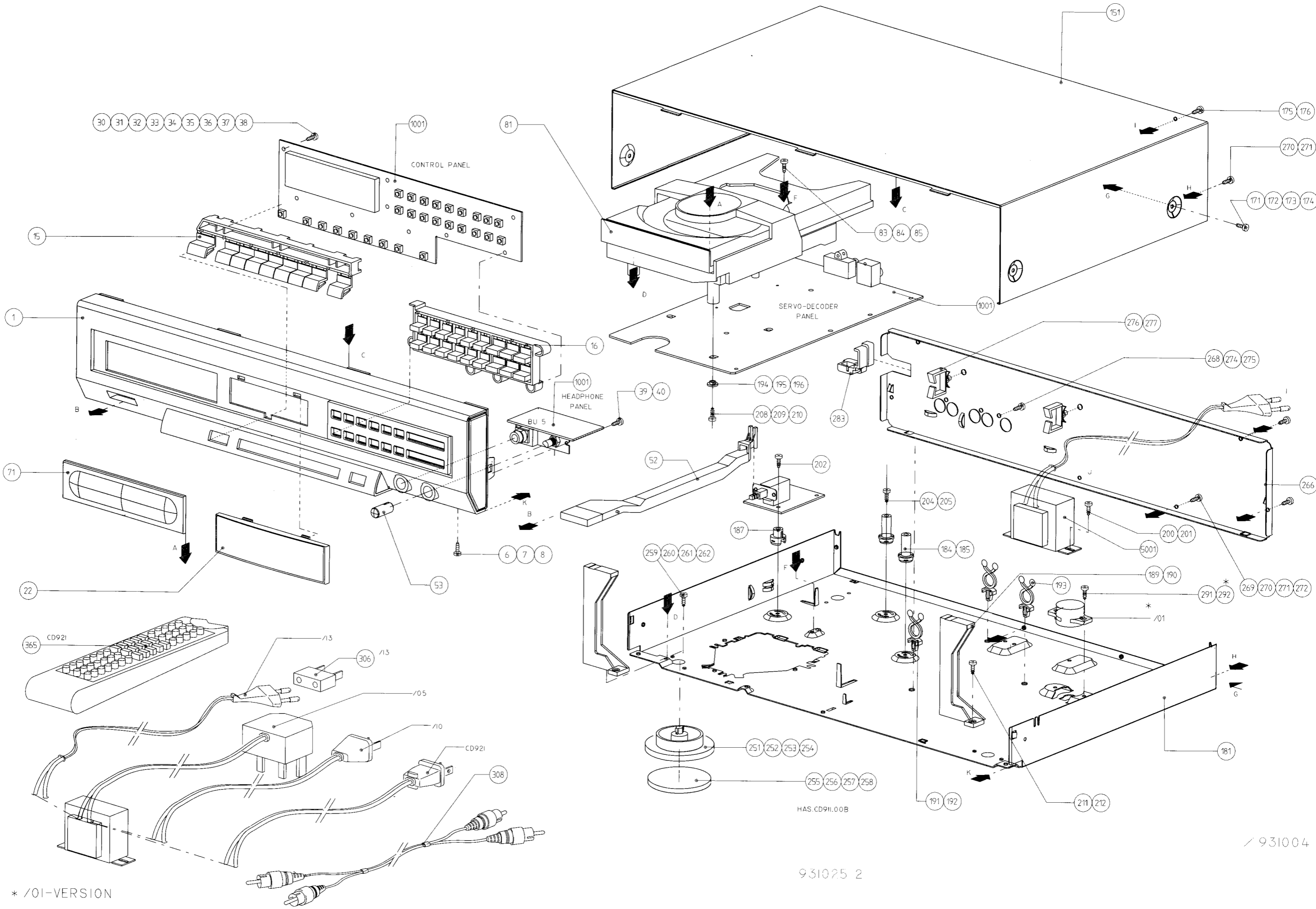


* /01-VERSION

EXPLODED VIEW

33

33



Y CD921)
 special request.
 ,262
 34,35,36,37,38

* /01-VERSION

931025 2

/ 931004

MAIN PANEL		
MISCELLANEOUS		
1000	4822 242 73557	RESONATOR 8.46MHz
1050	5322 242 73686	RESONATOR 12MHz
1101	4822 242 81705	RESONATOR 33.8MHz
1250	4822 267 31729	DIGITAL OUT SOCKET
1300	4822 267 31731	ANALOG OUT SOCKET
1510 ▲	4822 071 51002	FUSE RAD T 1A
1511 ▲	4822 071 51002	FUSE RAD T 1A
1530 ▲	4822 276 13489	MAINS SWITCH
1750	4822 267 31759	ESI BUS SOCKET
CAPACITORS		
2000	4822 122 10466	220pF 10% 50V
2001	4822 122 10466	220pF 10% 50V
2002	4822 122 10466	220pF 10% 50V
2003	4822 122 10466	220pF 10% 50V
2004	4822 122 10466	220pF 10% 50V
2005	4822 122 10466	220pF 10% 50V
2006	4822 126 12878	1,5nF 10% 16V
2007	4822 122 10459	560pF 10% 50V
2008	5322 124 21643	22μF 20% 40V
2009	4822 126 11585	22nF +80-20% 25V
2010	4822 126 11585	22nF +80-20% 25V
2011	5322 124 21643	22μF 20% 40V
2012	4822 126 11585	22nF +80-20% 25V
2013	5322 124 21643	22μF 20% 40V
2014	4822 126 12785	47pF TUB 50V
2025	5322 124 21643	22μF 20% 40V
2040	4822 126 10053	180pF 10%Y5P
2041	4822 126 10053	180pF 10%Y5P
2042	4822 126 12787	330pF 10% 50V
2043	4822 122 33848	47pF 5%SL 50V
2044	4822 122 33848	47pF 5%SL 50V
2045	4822 122 33195	100pF 10% 50V
2046	4822 126 12573	18pF 5% 50V
2047	5322 124 21643	22μF 20% 40V
2048	4822 126 12787	330pF 10% 50V
2049	4822 126 10053	180pF 10%Y5P
2050	4822 122 10466	220pF 10% 50V
2051	4822 126 11585	22nF +80-20% 25V
2052	5322 124 21643	22μF 20% 40V
2060	4822 126 12882	100nF +80-20% 50V
2062	4822 126 12882	100nF +80-20% 50V
2063	5322 121 42489	33nF 5% 250V
2064	4822 126 12882	100nF +80-20% 50V
2066	4822 126 12339	2,2nF 10% Y5Ω
2067	4822 126 12882	100nF +80-20% 50V
2068	4822 126 12148	2,7nF 10%
2069	4822 126 10053	180pF 10%Y5P
2071	4822 126 12882	100nF +80-20% 50V
2072	4822 126 12882	100nF +80-20% 50V
2074	4822 126 12882	100nF +80-20% 50V
2075	4822 126 13151	3,9nF 10%Y5Ω16V
2076	4822 126 10053	180pF 10%Y5P
2100	4822 126 12339	2,2nF 10% Y5Ω
2101	4822 122 33848	47pF 5%SL 50V
2102	4822 126 11585	22nF +80-20% 25V
2103	5322 121 42386	100nF 5% 63V
2105	4822 122 33195	100pF 10% 50V
2109	4822 122 33191	22pF 5% 50V
2110	5322 124 21643	22μF 20% 40V
2111	4822 126 12882	100nF +80-20% 50V
2112	4822 122 33848	47pF 5%SL 50V
2113	4822 122 33848	47pF 5%SL 50V
2114	4822 122 33197	1nF 10% 50V
2115	4822 126 11585	22nF +80-20% 25V
2117	4822 126 11585	22nF +80-20% 25V
2116	5322 124 21643	22μF 20% 40V
2118	4822 122 33848	47pF 5%SL 50V
2140	4822 126 12785	47nF TUB 50V
2141	4822 126 12882	100nF +80-20% 50V
2142	4822 122 33848	47pF 5%SL 50V
2251	4822 124 40248	10μF 20% 63V
2253	4822 126 12882	100nF +80-20% 50V
2300	4822 122 33519	470pF 10% 50V
2301	4822 122 33519	470pF 10% 50V
2302	4822 124 40433	47μF 20% 25V
2303	4822 124 40433	47μF 20% 25V
2304	4822 122 10573	56pF 5% 50V
2305	4822 122 10573	56pF 5% 50V
2306	4822 124 80408	4,7μF 20% 50V
2307	4822 124 80408	4,7μF 20% 50V
2308	4822 122 10466	220pF 10% 50V
2309	4822 122 10466	220pF 10% 50V
2310	4822 124 40433	47μF 20% 25V
2330	4822 126 12882	100nF +80-20% 50V
2331	4822 124 40433	47μF 20% 25V
2332	4822 126 12882	100nF +80-20% 50V
2333	4822 124 40433	47μF 20% 25V
2334	4822 126 12882	100nF +80-20% 50V
2335	4822 124 40433	47μF 20% 25V
2336	4822 126 12882	100nF +80-20% 50V
2337	4822 124 40433	47μF 20% 25V
2339	4822 124 40433	47μF 20% 25V
2531	4822 126 11585	22nF +80-20% 25V
2532	4822 126 11585	22nF +80-20% 25V
2533	4822 126 11585	22nF +80-20% 25V
2534	4822 126 11585	22nF +80-20% 25V
2535	4822 126 12882	100nF +80-20% 50V
2536	4822 124 41458	4700μF 20% 16V
2538	4822 124 80294	3300μF 20% 16V

2540	5322 124 22094	220μF 20% 50V
2541	4822 126 12882	100nF +80-20% 50V
2542	4822 124 40184	1000μF 20% 10V
2560	4822 124 40849	330μF 20% 16V
2600	4822 126 12882	100nF +80-20% 50V
2601	4822 126 11585	22nF +80-20% 25V
2602	4822 126 11585	22nF +80-20% 25V
2701	4822 126 11585	22nF +80-20% 25V
2703	4822 126 11585	22nF +80-20% 25V
2740	4822 124 40433	47μF 20% 25V
2741	4822 126 11585	22nF +80-20% 25V
RESISTORS		
3000	4822 116 52233	10k 5% 0,5W
3001	4822 116 52233	10k 5% 0,5W
3002	4822 116 52233	10k 5% 0,5W
3003	4822 116 52233	10k 5% 0,5W
3004	4822 116 52233	10k 5% 0,5W
3005	4822 116 52233	10k 5% 0,5W
3006	4822 050 11002	1k 1% 0,4W
3007	4822 050 11002	1k 1% 0,4W
3010	4822 116 52235	1M 5% 0,5W
3011	4822 116 52233	10k 5% 0,5W
3012	4822 116 52219	330Ω 5% 0,5W
3013	4822 050 11002	1k 1% 0,4W
3014	4822 116 52233	10k 5% 0,5W
3015	4822 116 52219	330Ω 5% 0,5W
3020	4822 050 11002	1k 1% 0,4W
3021	4822 116 52233	10k 5% 0,5W
3022 ▲	4822 052 10478	4Ω7 5% 0,33W
3040	4822 116 52239	120k 5% 0,5W
3041	4822 116 52239	120k 5% 0,5W
3042	4822 116 52291	56k 5% 0,5W
3043	4822 050 11002	1k 1% 0,4W
3044	4822 116 52222	390Ω 5% 0,5W
3045	4822 116 52175	100Ω 5% 0,5W
3046	4822 116 52249	1k8 5% 0,5W
3047	4822 116 52276	3k9 5% 0,5W
3048	4822 116 52175	100Ω 5% 0,5W
3049	4822 116 52249	1k8 5% 0,5W
3050	4822 116 52223	430Ω 5% 0,5W
3051	4822 116 52223	430Ω 5% 0,5W
3052	4822 050 11002	1k 1% 0,4W
3053	4822 116 52267	30k 5% 0,5W
3054	4822 116 52272	330k 5% 0,5W
3055	4822 116 52175	100Ω 5% 0,5W
3056	4822 050 11002	1k 1% 0,4W
3057	4822 116 52277	39k 5% 0,5W
3058	4822 116 52175	100Ω 5% 0,5W
3059	4822 116 52284	47k 5% 0,5W
3060	4822 116 52233	10k 5% 0,5W
3062 ▲	4822 052 10229	22Ω 5% 0,33W

3064	4822 116 52296	6k8 5% 0,5W
3065	4822 050 27502	7k5 1% 0,6W
3066	4822 050 21503	15k 1% 0,6W
3067	4822 116 52244	15k 5% 0,5W
3068 ▲	4822 052 10229	22Ω 5% 0,33W
3069	4822 116 52233	10k 5% 0,5W
3070	4822 116 52244	15k 5% 0,5W
3071	4822 116 52296	6k8 5% 0,5W
3072	4822 116 52233	10k 5% 0,5W
3073	4822 116 52244	15k 5% 0,5W
3074 ▲	4822 052 10229	22Ω 5% 0,33W
3075	4822 116 52233	10k 5% 0,5W
3076	4822 116 52283	4k7 5% 0,5W
3077	4822 116 52296	6k8 5% 0,5W
3078	4822 116 52244	15k 5% 0,5W
3079	4822 116 52244	15k 5% 0,5W
3100	4822 116 52256	2k2 5% 0,5W
3101	4822 116 52257	22k 5% 0,5W
3107	4822 116 52219	330Ω 5% 0,5W
3108	4822 116 52215	220Ω 5% 0,5W
3109	4822 116 52215	220Ω 5% 0,5W
3110	4822 116 52215	220Ω 5% 0,5W
3111	4822 116 52215	220Ω 5% 0,5W
3112	4822 116 52175	100Ω 5% 0,5W
3113 ▲	4822 052 10338	3Ω3 5% 0,33W
3114	4822 116 52235	1M 5% 0,5W
3115 ▲	4822 052 10338	3Ω3 5% 0,33W
3116	4822 116 52175	100Ω 5% 0,5W
3117	4822 116 52219	330Ω 5% 0,5W
3140	4822 116 52271	33k 5% 0,5W
3141	4822 116 52271	33k 5% 0,5W
3142	4822 116 52271	33k 5% 0,5W
3143	4822 116 52234	100k 5% 0,5W
3144	4822 116 52234	100k 5% 0,5W
3145 ▲	4822 052 10229	22Ω 5% 0,33W
3146	4822 116 52175	100Ω 5% 0,5W
3147	4822 116 52283	4k7 5% 0,5W
3252	4822 116 52199	68Ω 5% 0,5W
3302	4822 116 52233	10k 5% 0,5W
3303	4822 116 52233	10k 5% 0,5W
3304	4822 116 52244	15k 5% 0,5W
3305	4822 116 52244	15k 5% 0,5W
3306	4822 116 52257	22k 5% 0,5W
3307	4822 116 52257	22k 5% 0,5W
3308	4822 050 11002	1k 1% 0,4W
3309	4822 050 11002	1k 1% 0,4W
3330 ▲	4822 052 10338	3Ω3 5% 0,33W
3331 ▲	4822 052 10338	3Ω3 5% 0,33W
3332 ▲	4822 052 10338	3Ω3 5% 0,33W
3333 ▲	4822 052 10478	4Ω7 5% 0,33W
3334 ▲	4822 052 10478	4Ω7 5% 0,33W
3360	4822 116 52284	47k 5% 0,5W
3361	4822 116 52284	47k 5% 0,5W

3362	4822 116 5
3363	4822 116 5
3364	4822 116 5
3365	4822 116 5
3366	4822 116 5
3367	4822 116 5
3368	4822 116 5
3369	4822 116 5
3376	4822 050 1
3377	4822 050 1
3500	4822 116 5
3501	4822 050 1
3502	4822 116 5
3503	4822 116 5
3540	4822 116 5
3541	4822 116 5
3542	4822 116 5
3543	4822 116 5
3544	4822 116 5
3545 ▲	4822 052 1
3560	4822 050 1
3562	4822 116 5
3563	4822 116 5
3601	4822 116 5
3602	4822 116 5
3603 ▲	4822 052 1
3604	4822 116 5
3606	4822 116 5
3607	4822 116 5
3700	4822 116 5
3701	4822 116 5
3703	4822 116 5
3706	4822 116 5
3707	4822 116 5
3708	4822 116 5
3709	4822 116 5
3710	4822 116 5
3711	4822 116 5
3714	4822 116 5
3715	4822 116 5
3716	4822 050 1
3717	4822 050 1
3718	4822 050 1
3719	4822 050 1
3720	4822 050 1
3723	4822 116 5
3743 ▲	4822 052 1
3744	4822 116 5
3745	4822 116 5
3746	4822 116 5
3747	4822 116 5
3748	4822 116 5
3749	4822 116 5
3750	4822 116 5

2540	5322 124 22094	220μF 20% 50V	3064	4822 116 52296	6k8 5% 0,5W
2541	4822 126 12882	100nF +80-20% 50V	3065	4822 050 27502	7k5 1% 0,6W
2542	4822 124 40184	1000μF 20% 10V	3066	4822 050 21503	15k 1% 0,6W
2560	4822 124 40849	330μF 20% 16V	3067	4822 116 52244	15k 5% 0,5W
2600	4822 126 12882	100nF +80-20% 50V	3068 ▲	4822 052 10229	22Ω 5% 0,33W
2601	4822 126 11585	22nF +80-20% 25V	3069	4822 116 52233	10k 5% 0,5W
2602	4822 126 11585	22nF +80-20% 25V	3070	4822 116 52244	15k 5% 0,5W
2701	4822 126 11585	22nF +80-20% 25V	3071	4822 116 52296	6k8 5% 0,5W
2703	4822 126 11585	22nF +80-20% 25V	3072	4822 116 52233	10k 5% 0,5W
2740	4822 124 40433	47μF 20% 25V	3073	4822 116 52244	15k 5% 0,5W
2741	4822 126 11585	22nF +80-20% 25V	3074 ▲	4822 052 10229	22Ω 5% 0,33W
RESISTORS			3075	4822 116 52233	10k 5% 0,5W
3000	4822 116 52233	10k 5% 0,5W	3076	4822 116 52283	4k7 5% 0,5W
3001	4822 116 52233	10k 5% 0,5W	3077	4822 116 52296	6k8 5% 0,5W
3002	4822 116 52233	10k 5% 0,5W	3078	4822 116 52244	15k 5% 0,5W
3003	4822 116 52233	10k 5% 0,5W	3079	4822 116 52244	15k 5% 0,5W
3004	4822 116 52233	10k 5% 0,5W	3100	4822 116 52256	2k2 5% 0,5W
3005	4822 116 52233	10k 5% 0,5W	3101	4822 116 52257	22k 5% 0,5W
3006	4822 050 11002	1k 1% 0,4W	3107	4822 116 52219	330Ω 5% 0,5W
3007	4822 050 11002	1k 1% 0,4W	3108	4822 116 52215	220Ω 5% 0,5W
3010	4822 116 52235	1M 5% 0,5W	3109	4822 116 52215	220Ω 5% 0,5W
3011	4822 116 52233	10k 5% 0,5W	3110	4822 116 52215	220Ω 5% 0,5W
3012	4822 116 52219	330Ω 5% 0,5W	3111	4822 116 52215	220Ω 5% 0,5W
3013	4822 050 11002	1k 1% 0,4W	3112	4822 116 52175	100Ω 5% 0,5W
3014	4822 116 52233	10k 5% 0,5W	3113 ▲	4822 052 10338	3Ω3 5% 0,33W
3015	4822 116 52219	330Ω 5% 0,5W	3114	4822 116 52235	1M 5% 0,5W
3020	4822 050 11002	1k 1% 0,4W	3115 ▲	4822 052 10338	3Ω3 5% 0,33W
3021	4822 116 52233	10k 5% 0,5W	3116	4822 116 52175	100Ω 5% 0,5W
3022 ▲	4822 052 10478	4Ω7 5% 0,33W	3117	4822 116 52219	330Ω 5% 0,5W
3040	4822 116 52239	120k 5% 0,5W	3140	4822 116 52271	33k 5% 0,5W
3041	4822 116 52239	120k 5% 0,5W	3141	4822 116 52271	33k 5% 0,5W
3042	4822 116 52291	56k 5% 0,5W	3142	4822 116 52271	33k 5% 0,5W
3043	4822 050 11002	1k 1% 0,4W	3143	4822 116 52234	100k 5% 0,5W
3044	4822 116 52222	390Ω 5% 0,5W	3144	4822 116 52234	100k 5% 0,5W
3045	4822 116 52175	100Ω 5% 0,5W	3145 ▲	4822 052 10229	22Ω 5% 0,33W
3046	4822 116 52249	1k8 5% 0,5W	3146	4822 116 52175	100Ω 5% 0,5W
3047	4822 116 52276	3k9 5% 0,5W	3147	4822 116 52283	4k7 5% 0,5W
3048	4822 116 52175	100Ω 5% 0,5W	3252	4822 116 52199	68Ω 5% 0,5W
3049	4822 116 52249	1k8 5% 0,5W	3302	4822 116 52233	10k 5% 0,5W
3050	4822 116 52223	430Ω 5% 0,5W	3303	4822 116 52233	10k 5% 0,5W
3051	4822 116 52223	430Ω 5% 0,5W	3304	4822 116 52244	15k 5% 0,5W
3052	4822 050 11002	1k 1% 0,4W	3305	4822 116 52244	15k 5% 0,5W
3053	4822 116 52267	30k 5% 0,5W	3306	4822 116 52257	22k 5% 0,5W
3054	4822 116 52272	330k 5% 0,5W	3307	4822 116 52257	22k 5% 0,5W
3055	4822 116 52175	100Ω 5% 0,5W	3308	4822 050 11002	1k 1% 0,4W
3056	4822 050 11002	1k 1% 0,4W	3309	4822 050 11002	1k 1% 0,4W
3057	4822 116 52277	39k 5% 0,5W	3330 ▲	4822 052 10338	3Ω3 5% 0,33W
3058	4822 116 52175	100Ω 5% 0,5W	3331 ▲	4822 052 10338	3Ω3 5% 0,33W
3059	4822 116 52284	47k 5% 0,5W	3332 ▲	4822 052 10338	3Ω3 5% 0,33W
3060	4822 116 52233	10k 5% 0,5W	3333 ▲	4822 052 10478	4Ω7 5% 0,33W
3062 ▲	4822 052 10229	22Ω 5% 0,33W	3334 ▲	4822 052 10478	4Ω7 5% 0,33W

			COILS		
3362	4822 116 52258	220k 5% 0,5W	5010	4822 157 62552	2,2μH
3363	4822 116 52258	220k 5% 0,5W	5100	4822 157 62552	2,2μH
3364	4822 116 52256	2k2 5% 0,5W	5250	4822 157 70601	DIG. OUT TRANSFO
3365	4822 116 52256	2k2 5% 0,5W	DIODES		
3366	4822 116 52256	2k2 5% 0,5W	6360	4822 130 30621	1N4148
3367	4822 116 52256	2k2 5% 0,5W	6361	4822 130 30621	1N4148
3368	4822 116 52233	10k 5% 0,5W	6500	4822 130 31981	BZX79-C3V9
3369	4822 116 52233	10k 5% 0,5W	6535	5322 130 30684	1N4002GP
3376	4822 050 11002	1k 1% 0,4W	6536	5322 130 30684	1N4002GP
3377	4822 050 11002	1k 1% 0,4W	6537	5322 130 30684	1N4002GP
3500	4822 116 52226	560Ω 5% 0,5W	6538	5322 130 30684	1N4002GP
3501	4822 050 11002	1k 1% 0,4W	6540	4822 130 83362	1N4004GP
3502	4822 116 52257	22k 5% 0,5W	6541	4822 130 34278	BZX79-C6V8
3503	4822 116 52257	22k 5% 0,5W	6542	4822 130 30621	1N4148
3540	4822 116 52284	47k 5% 0,5W	6543	5322 130 30684	1N4002GP
3541	4822 116 52243	1k5 5% 0,5W	6544	4822 130 30621	1N4148
3542	4822 116 52283	4k7 5% 0,5W	6560	5322 130 30684	1N4002GP
3543	4822 116 52283	4k7 5% 0,5W	6561	5322 130 30684	1N4002GP
3544	4822 116 52257	22k 5% 0,5W	6562	4822 130 31981	BZX79-C3V9
3545 ▲	4822 052 10478	4Ω7 5% 0,33W	6740	4822 130 31983	BAT85
3560	4822 050 11002	1k 1% 0,4W	TRANSISTORS & IC'S		
3562	4822 116 52283	4k7 5% 0,5W	7000	4822 209 31064	TDA1301T/N1
3563	4822 116 52283	4k7 5% 0,5W	7040	4822 130 40902	BF240
3601	4822 116 52238	12k 5% 0,5W	7041	4822 130 40937	BC548B
3602	4822 116 52238	12k 5% 0,5W	7042	4822 130 44197	BC558B
3603 ▲	4822 052 10229	22Ω 5% 0,33W	7043	4822 130 40937	BC548B
3604	4822 116 52303	8k2 5% 0,5W	7044	4822 130 40937	BC548B
3606	4822 116 52238	12k 5% 0,5W	7060	4822 209 72587	TCA0372
3607	4822 116 52238	12k 5% 0,5W	7061	4822 209 72587	TCA0372
3700	4822 116 52258	220k 5% 0,5W	7100	4822 209 33166	SAA7345GP/M2A
3701	4822 116 52257	22k 5% 0,5W	7300	4822 209 33252	TDA1549T/N1
3703	4822 116 52257	22k 5% 0,5W	7301	4822 209 83274	NJM4560D
3706	4822 116 52257	22k 5% 0,5W	7360	4822 130 44197	BC558B
3707	4822 116 52257	22k 5% 0,5W	7361	4822 130 44197	BC558B
3708	4822 116 52257	22k 5% 0,5W	7362	4822 130 41344	BC337-40
3709	4822 116 52257	22k 5% 0,5W	7363	4822 130 41344	BC337-40
3710	4822 116 52257	22k 5% 0,5W	7364	4822 130 41344	BC337-40
3711	4822 116 52257	22k 5% 0,5W	7365	4822 130 41344	BC337-40
3714	4822 116 52257	22k 5% 0,5W	7500	4822 130 44197	BC558B
3715	4822 116 52233	10k 5% 0,5W	7535	4822 209 80891	MC7805CT
3716	4822 050 11002	1k 1% 0,4W	7540	5322 209 62115	MC79L15AC
3717	4822 050 11002	1k 1% 0,4W	7541	4822 130 40937	BC548B
3718	4822 050 11002	1k 1% 0,4W	7542	4822 130 41344	BC337-40
3719	4822 050 11002	1k 1% 0,4W	7543	4822 130 44197	BC558B
3720	4822 050 11002	1k 1% 0,4W	7560	4822 130 44197	BC558B
3723	4822 116 52257	22k 5% 0,5W			
3743 ▲	4822 052 10109	10Ω 5% 0,33W			
3744	4822 116 52175	100Ω 5% 0,5W			
3745	4822 116 52284	47k 5% 0,5W			
3746	4822 116 52251	18k 5% 0,5W			
3747	4822 116 52284	47k 5% 0,5W			
3748	4822 116 52284	47k 5% 0,5W			
3749	4822 116 52284	47k 5% 0,5W			
3750	4822 116 52284	47k 5% 0,5W			

7600	4822 209 72587	TCA0372	RESISTORS		
7700	4822 209 33406	MC68HC11ER24/P160-07	3370	4822 101 21199	10kX2 20% 0,025W
7740	4822 130 44197	BC558B	3371	4822 116 52233	10k 5% 0,5W
7741	4822 130 40937	BC548B	3372	4822 116 52233	10k 5% 0,5W
7742	4822 130 40937	BC548B	3373	4822 116 52244	15k 5% 0,5W
DISPLAY & HEADPHONE PANEL			3374	4822 116 52244	15k 5% 0,5W
MISCELLANEOUS			3375	4822 116 52206	120Ω 5% 0,5W
1040	4822 256 91876	DISPLAY HOLDER	3376	4822 116 52206	120Ω 5% 0,5W
1371	4822 214 52009	IR RECEIVER GP1U58XP	3400	4822 116 52258	220k 5% 0,5W
1402	4822 267 31453	HEADPHONE SOCKET	3401	4822 116 52257	22k 5% 0,5W
1420	4822 242 72527	RESONATOR 4MHz	3402	4822 116 52257	22k 5% 0,5W
1421	4822 276 13114	TACT SWITCH	3403	4822 116 52257	22k 5% 0,5W
1422	4822 276 13114	TACT SWITCH	3404	4822 116 52257	22k 5% 0,5W
1423	4822 276 13114	TACT SWITCH	3406	4822 116 52257	22k 5% 0,5W
1425	4822 276 13114	TACT SWITCH	3407	4822 116 52284	47k 5% 0,5W
1426	4822 276 13114	TACT SWITCH	3409	4822 116 52257	22k 5% 0,5W
1427	4822 276 13114	TACT SWITCH	COILS		
1428	4822 276 13114	TACT SWITCH	5370	4822 157 60122	COIL 4.7μH
1429	4822 276 13114	TACT SWITCH	5371	4822 157 60122	COIL 4.7μH
1430	4822 276 13114	TACT SWITCH	DIODES, TRANSISTORS & I.C.'s		
1431	4822 276 13114	TACT SWITCH	6400	4822 130 30621	1N4148
1432	4822 276 13114	TACT SWITCH	6401	4822 130 30621	1N4148
1433	4822 276 13114	TACT SWITCH	6402	4822 130 30621	1N4148
1434	4822 276 13114	TACT SWITCH	6403	4822 130 30621	1N4148
1435	4822 276 13114	TACT SWITCH	6404	4822 130 30621	1N4148
1436	4822 276 13114	TACT SWITCH	6405	4822 130 30621	1N4148
1437	4822 276 13114	TACT SWITCH	6406	4822 130 30621	1N4148
1438	4822 276 13114	TACT SWITCH	7370	4822 209 82362	NJM4556D
1439	4822 276 13114	TACT SWITCH	7400	4822 209 30249	TMP47C212AN
1440	4822 276 13114	TACT SWITCH	MAINS VOLTAGE		
1441	4822 276 13114	TACT SWITCH	5001 ▲	4822 146 31337	MAINS TRANSFO /00
1442	4822 276 13114	TACT SWITCH	5001 ▲	4822 146 31341	MAINS TRANSFO /17
1443	4822 276 13114	TACT SWITCH	CAPACITORS		
1444	4822 276 13114	TACT SWITCH	2370	4822 126 11585	22nF +80-20% 25V
1445	4822 276 13114	TACT SWITCH	2371	4822 122 33197	1nF 10% 50V
1446	4822 276 13114	TACT SWITCH	2372	4822 122 33197	1nF 10% 50V
1450	4822 130 91331	DISPLAY 8-BT-156GK	2373	4822 122 33197	1nF 10% 50V
			2404	5322 124 21643	22μF 20% 40V