Midi System  

Service Service Service

Service Manual

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Annex

Service Manual Tape Transport RDN-11
Service Manual Record Player DL-40

CLASS 1 LASER PRODUCT

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SERVICE TEST PROGRAM

The service test program can be left:
- at each step by switching power off (disconnect mains)
- from service main menu:
  by pressing the Standby button twice the set is switched
to normal working mode except: * in TUNER mode still the service preset
frequencies are available.
* in CD mode the error codes will be displayed.

2) Preset frequencies of table 1 can be used
as in normal tuner mode.
If fieldstrength is high enough "PROGRAM" flag will light.
Preset frequencies stored by the customer are still
stored in the EEPROM and can be recalled by a reset
of the μP (switching power off by disconnecting mains cord).

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**Picture 1**

**Picture 2**

**Picture 3**

**Picture 4**
To start service test:
- program hold:
- PROGR, & PRESET UP buttons depressed while plugging in the mains cord

Display shows set name and number of ROM version "54 xx 5" (Main menu)

1) 54 stands for AS 440 or AS 540
64 stands for AS 640
xx version number of software
5 stands for Service test program
Divided quartz frequency of front UP (61 Hz) can be measured on pin 34 of the display

CD SERVO TEST

CD button pressed?

Y

Display shows version number of CD software stage. "cd xx"

N

TRACK SKIP button pressed?

Y

FOCUS
- Display shows "FOC" Focus search activated
  Lens moves continuously updown if no disc is inserted

N

TRACK SKIP button pressed?

Y

SLIDE
- Display shows "SLED" Optical pickup unit (slide) moves out side as long as STOP button is being held depressed.

N

STOP button pressed?

Y

Power switched off

N

Service mode left

3) The CD PLAY Test is made for continuously playing and detecting intermittent or no failures. The error code
  the failure can be found.

CD PLAY TEST 3

N

STANDBY button pressed twice?

Y

CD is in normal play mode

In case of error codes:
Table 3 will indicate on the display

Y

Power switched on

N

Disc motor starts rotating

Display shows "DFL" Disc motor starts rotating

N

RADIAL
- Display shows "FAL" All servos switched on.
  Set is in play mode

Press PREVIOUS button 4x to leave CD test.

Y

TRACK SKIP button pressed?

N

Slide moves to outer side

Y

N
CD PLAY TEST 3)

CD is in normal play mode. In case of failures, error codes according to table 3 will be indicated on the display.

Power switched off?

Service mode left

3) The CD PLAY Test is intended to be used for continuously playing a disc in order to detect intermittent or not reproducible failures. The error code indicates where the failure can be found.

STANDBY button pressed twice?

Volume knob turns clockwise,
Display shows "U"

Any other button pressed?

Volume motor stops,
Back to main menu
or switch over directly to another test which can be activated by the chosen key.

TUNING UP button pressed?

Volume knob turns counter clockwise,
Display shows "U"

With the TUNING UP and TUNING DOWN buttons the volume pot. can be controlled alternatively

TUNING DOWN button pressed?

AUTOPROGRAM button pressed?

Display shows "Y"
for 2 seconds
EEPROM is cleared

CLEAR EEPROM 4)

VOLUME POTENTIOMETER TEST

4) Use this mode only in case of a µP "hang up" to clear the EEPROM.
Attention: All preset frequencies stored by the customer will be cleared.
Dismantling hints CD Short Loader

Dismantling the tray

a) Press open/close button to open the tray. If the tray doesn't work, use a small screwdriver as shown in Fig. 1 point 1 to move the tray outside. After the first centimeter it is possible to pull the tray out by hand.

b) Release two snaps and remove tray.

Fig. 1
Assembly of gear

a) Use a pin (e.g. a paperclip) to align the cam wheel (a) and the gear wheel (b) together. See Fig. 2.

b) Fix the wheels with the small plastic washers.

Fig. 2
c) Mount idle wheel 2 (c) and idle wheel 1 (d) in any position. See Fig. 3.

d) Fix the idle wheel 1 with the small plastic washer.

e) Mount the driving belt.

f) Mount the pinion guiding assy and the cover as shown in Fig. 4.

g) Turn the gear wheel (b) counter clockwise to endposition.

h) Mount the CD Mechanismn as shown in Fig. 5.

i) Mount the tray. (Align the tray to the chassis and push it inside)

**Check if tray mechanismn works correct!**

1) Turn the gear wheel (b) clockwise to its endposition.
(Use a small screwdriver as shown in Fig. 1 point 1)

The tray has to move to inner position first and than the CD Mechanismn has to move to its upper position.

2) Turn the gear wheel (b) counter clockwise to its endposition.

The CD Mechanismn has to move to its lower position first and than the tray has to move to outside.
Fault Finding Tree CD

BEGIN

Press Open/Close

Tray opened ?

N

Load disc
press play

Y

TOC on display ?

N

Enter Service Test Program
"CD Servo Test"
remove disc

Y

Slide motor ok ?

N

Enter Step 1
Focus Search

Y

Laser light ?

N

Load disc

Y

Focus ok ?

N

Enter Step 2
Disc Test

Y

Disc turns ?

N

Enter Step 3
Radial servo

Y

Radial Servo ok ?

N

Leave Service Test Program
press play

Y

Enter Service Test program
"CD PLAY TEST"
See error table.