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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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PHILIPS
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 all 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)
3) The CD PLAY Test is intended to be used for continuously playing a disc in order to detect repeatable or non-reproducible failures. The error code indicates where the failure can be found.

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.
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 end position.

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

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

Check if tray mechanism 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 then the CD Mechanism has to move to its upper position.

2) Turn the gear wheel (b) counter clockwise to its endposition.
   The CD Mechanism has to move to its lower position first and then the tray has to move to outside.
BEGIN
Press Open/Close

Tray opened?
N

Y
Load disc
press play

TOC on display?
N

Y
Enter Service Test Program
"CD Servo Test"
remove disc

Slide motor ok?
N

Y
Enter Step 1
Focus Search

Laser light?
N

Y
Load disc

Focus ok?
N

Y
Enter Step 2
Disc Test

Disc turns?
N

Y
Enter Step 3
Radial servo

Radial Servo ok?
N

Y
Leave Service Test Program
press play

TOC on display?
N

Y
Enter Service Test Program
"CD PLAY TEST"
See error table.

Check: Supply voltages +12V, +5V
Communication lines to main µP of apparatus.
Pin 12 of µP 7496
Motor driver 7855; Safety resistor 3849.
Tray mechanism, wiring, tray switch
Check oscillation of µP 7496.

Check: Wiring of CDM (CD Mechanism)
Power supply 7496
Reference voltage 48650 - GND
OPAMP 7495
DSIC2 (7850) Power supply
Oscillator voltage Pin 19
Communication lines with µP 7496
Output pin (24)

Check: DSIC2 (7850) Pin 22
CDM

Check: Eye Pattern on MP1
Signal Processor 7850, Pin 22, 23, 24
Communication lines 7850 - 7850
Motor driver 7852
CDM

Check: DSIC2 (7850) Pin 23
Power supply 7850
Motor driver 7851
CDM

Check: DSIC2 (7850) Pin 21
TS 7429
CDM