MAGNAVOX

DCC 600 Digital Compact Cassette Recorder
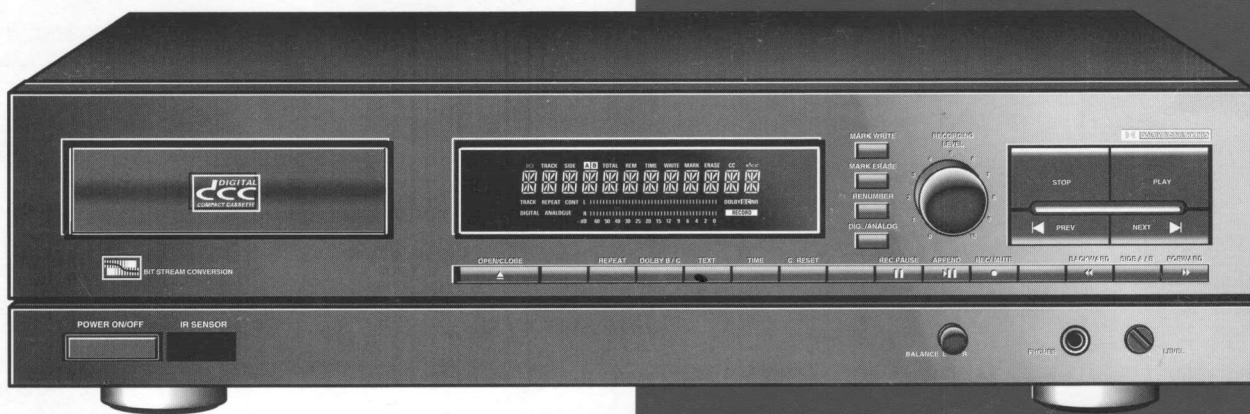
USA Owner's Manual
F Mode d'emploi
E Instr...

INDEX

(USA)

This set complies with the FCC-Rules, Part 15 and with 21 CFR 1040-10.

(F)

L'appareil répond aux normes FCC, Part 15 et aux normes 21 CFR 1040-10.

(E)

El aparato cumple las normas FCC, Parte 15 y las normas 21 CFR 1040-10.

WARNING:

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

ATTENTION:

Pour éviter les dangers d'électrocution ou d'incendie, ne pas exposer cet appareil à la pluie ou à l'humidité.

AVISO:

Para evitar incendios y descargas eléctricas, no exponer este aparato a la lluvia ni a la humedad.

MAGNAVOX

Congratulations on your new purchase ... and welcome to the MAGNAVOX family!

Dear MAGNAVOX family member:

Thank you for your confidence in MAGNAVOX. You've selected one of the best-built, best-backed products available today.

We appreciate your support, and we'll do everything we can do to keep you happy with your purchase for many years to come. After all, you're the reason we're in business!

As a MAGNAVOX family member, you're entitled to a world of special privileges - and our uncompromising commitment to your total satisfaction.
Your MAGNAVOX product is protected by one of the most comprehensive warranties and outstanding service networks in the industry.
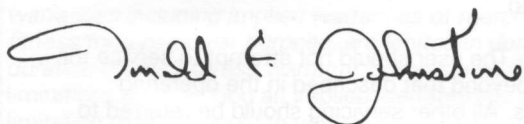
What's more, your purchase qualifies you to receive advance information on exciting new products from MAGNAVOX, convenient access to our home shopping network for special products and accessories, plus factory-direct rebates and discounts on your future MAGNAVOX purchases.

All of this is our way of saying 'thanks' for joining the MAGNAVOX family.

To start taking advantage of these great benefits, just remember to return your MAGNAVOX Owner's Registration Card.

Simply complete, detach and mail us your Owner's Registration Card today. And enjoy your new purchase with our best wishes!

Sincerely,

Donald F. Johnstone
President and Chief Executive Officer
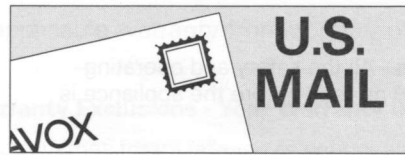

For Customer Use:
Enter below the Serial No. which is located on the rear of the cabinet.
Retain this information for future reference.

Model No.   **DCC 600**

Serial No.

Please follow these three important steps to get the most from your product

Return your owner's registration card within 10 days

Registering your purchase is an essential step to guarantee that you'll receive all of the benefits you're entitled to as a MAGNAVOX product owner.
Complete and mail your Owner's Registration Card today to ensure your right to warranty verification, owner confimation, model registration, plus a wide variety of special services and savings.

Know these safety symbols

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This bolt of lightning indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

This exclamation point calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

Read operating instructions carefully
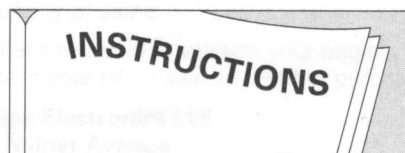
INSTRUCTIONS

The information in this manual can help you take full advantage of your product's many features, and ensure years of safe, reliable operation. So don't miss out. Read the enclosed instructions, safety tips and warranty information today.
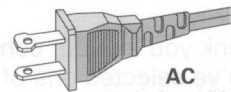
English

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.

2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.

3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.

4. **Follow Instructions** - All operating and use instructions should be followed.

5. **Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.

6. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.

8. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

9. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

10. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

11. **Grounding or Polarization** - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
AC Polarized Plug
Caution: To prevent electric shock, match the wide blade of this plug to the wide slot, fully insert. Do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

12. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.

13. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.

14. **Power Lines** - An outdoor antenna should be located away from power lines.

15. **Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

16. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

17. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.

18. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Audio Systems
- One (1) Year Carry-In Labor Warranty
- One (1) Year Carry-In Service Parts Warranty

* For purchases outside the U.S.A. and Canada, see applicable warranty from country of purchase.

Replacement Parts and Service Labor:

For one (1) year from the date of purchase an Authorized Service Center will replace any part found defective and will repair any product defect without charge to you for parts or labor.

Replacement parts installed during the warranty period are warranted only for the balance of the original warranty.

Who is protected? . . . Where?

This warranty is extended to the original retail purchaser for products purchased and used in the U.S.A., Puerto Rico, the Virgin Islands and Canada. If you move within these areas an Authorized Service Center in your area will honor this warranty for the remainder of the original warranty period.

What the Purchaser Must Do:

Before delivering your unit for service, check your operating instruction booklet. A slight adjustment of the customer controls discussed in your instruction booklet may save you a service call.

Warranty Exclusions - Your Warranty Does Not Cover:

Labor charges for installation or set-up, adjustment of customer or preference controls and installation or repair of audio antenna systems outside the unit.

Product repair and/or part replacement because of mis-use, accident, unauthorized repair or other cause not within the control of Philips Consumer Electronics Company.

Reception problems caused by signal conditions or antenna systems outside the unit.

A unit purchased, used or serviced outside the U.S.A., Puerto Rico, the Virgin Islands and Canada, or used for commercial or institutional purposes (included but not limited to products used for rental purposes).

Incidental or consequential damages resulting from the product or use of the product. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

IMPORTANT REMINDER:

Please fill out and mail your Warranty Registration Card promptly. It will be easier for us to notify you if it should ever be required.

For product purchased in the U.S.A., Puerto Rico, or the Virgin Islands

How To Get Warranty Service:

To obtain warranty service you must deliver your unit, with evidence of the purchase date, to an Authorized Service Center (see enclosed listing) for repair if service is required during the warranty period. When repair is completed you must pick up the unit at the Service Center.

In the U.S.A., Puerto Rico or the Virgin Islands, all implied warranties including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Philips Service Company
401 East Old Andrew Johnson Highway
Jefferson City, Tennessee, USA 37760
☎ **(615) 475-8869**

For product purchased in Canada

How To Get Warranty Service:

To obtain warranty service, the product must be delivered (carried-in) to a Philips Consumer Service Branch (see enclosed listing), Philips Self-Servicing Dealer or Authorized Service Depot.

These warranties are given in lieu of all other warranties. No other guarantees or warranties are expressed or implied, including any implied warranties of merchantability or fitness for purpose. Philips shall not be liable under any circumstances for any direct, indirect, special, incidental or consequential damages, howsoever incurred, even if notified of the possibility of same.

All that's required to validate your original factory warranty is to present your bill of sale as proof of purchase.

Philips Electronics Ltd.
601 Milner Avenue
Scarborough, Ontario, Canada M1B 1M8
☎ **(416) 292-5161**

Please write in your Model and Serial numbers below. The numbers are located on your unit. Keep this manual nearby for easy reference.

Model No. _____   Serial No. _____

EL 4553-E001

92/4

English

Dear customer!

Congratulations on purchasing this DCC 600. We have made use of our longstanding experience and have not spared the use of up-to-date technology and thus succeeded in developing the DCC 600.

In the eighties, a new Audio system was invented - the CD. The CD (Compact Disc) revealed to you the new dimension of digital sounds and added to the pleasures of Audio. Digital recordings on CD permit a high contrast in loud as well as in quiet passages with perfect channel separation. It is less sensitive to dirt and destruction, as the CD player is equipped with an error correction.

Magnavox has now further developed the music cassette - and the result is the DCC.
DCC (Digital Compact Cassette) fills the large gap between the music cassette and the compact disc. DCC is capable of being recorded on and played back just like the music cassette. The quality and the capacity is that of a CD. An additional advantage is that you can also play the conventional analog music cassette.

Please read the operating instructions carefully, to be able to enjoy the troublefree operation of the DCC 600 for a long time.

Copyright:

Recording or copying is only authorised if there is no violation of copyright or other rights of third parties.
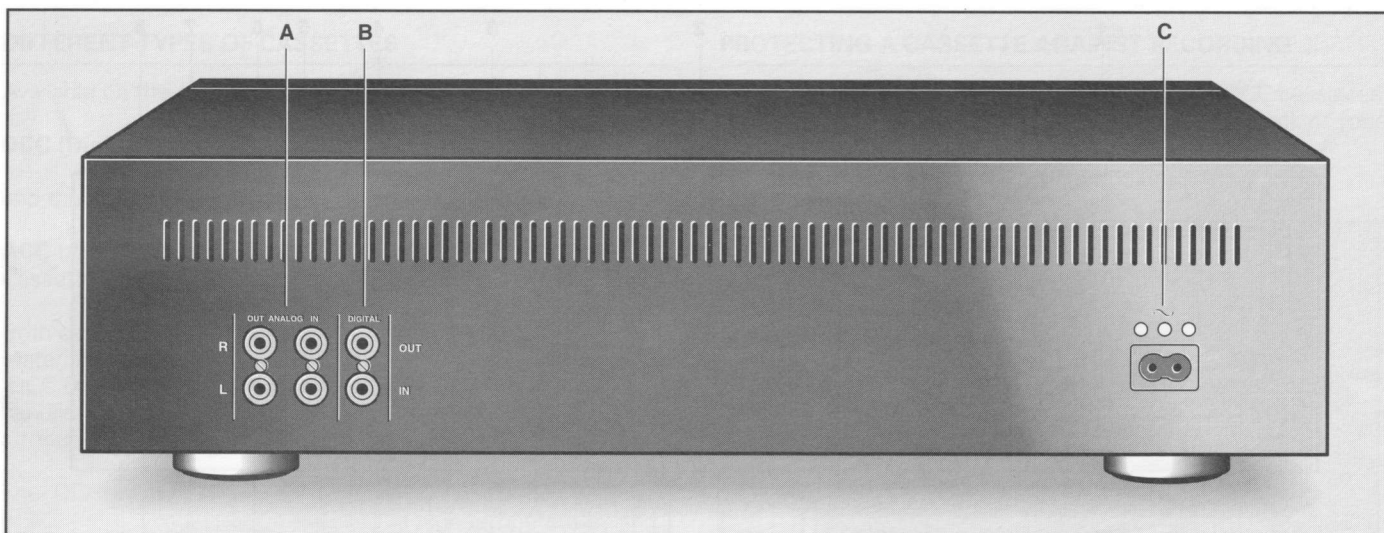
REAR PANEL:

A ANALOG IN — Input jacks (left/right) for an analog audio signal .

   ANALOG OUT — Output jacks (left/right) of an analog audio signal.

B DIGITAL IN — Input jack for a digital audio signal.

   DIGITAL OUT — Output jack of a digital audio signal.

C POWER — Jack for supplied power cord.

POWER SUPPLY

• Check that the tape plate on the rear of your 'DCC 600' indicates the correct supply voltage.
• If your supply voltage is different, consult your dealer or our Service Organisation.

INSTALLATION:

• Do not place the 'DCC 600' in humid, too warm or hot areas (e.g. on top of the amplifier), near magnetic fields or in dusty rooms, as this will reduce the life of the unit.

• When positioning the unit, put the 'DCC 600' on the bottom of the stack or, when positioning the units side by side - the 'DCC 600' on the right side.

• Keep a free space of a few centimeters around the unit and do not cover any vents.

• After you have positioned the unit correctly, it has to adapt to the new ambient temperature. Leave the 'DCC 600' for about 30 minutes, to allow possible condensation water to evaporate.
Failure to follow these instructions may cause damage to the electronics!

The type plate is located on the rear of the unit.

• Connect the units as follows:

ANALOG IN - Insert the red plug to the R jack and the other plug to the L jack of your 'DCC 600'. Insert the two other plugs to the corresponding output jacks of your amplifier. You can also use the TAPE or AUX outputs of your amplifier.

ANALOG OUT - Insert the red plug to the R jack and the other plug to the L jack of your 'DCC 600'. Insert the two other plugs to the corresponding input jacks of your amplifier. You can also use the TAPE, CD, AUX or TUNER inputs of your amplifier.

DIGITAL IN - Insert one plug of the phono cord to the input jack of your 'DCC 600' and the other plug to the corresponding digital output jack of e.g. CD and DAT.

DIGITAL OUT - Insert one plug of the phono cord to the output jack of your 'DCC 600' and the other plug to the corresponding digital input jack of e.g. amplifier, CD and DAT.

• Connect the smaller plug of the supplied power cord to the POWER jack of the 'DCC 600' and the AC power plug to the wall outlet.

• You can now start the operation. Enjoy yourself!

A FEW RECOMMENDATIONS:

• If the unit is not used for some time, it is recommended to switch off the unit and pull out the power plug. By doing this, you will protect it from lightning damage.

• When you pull the power plug out, do not take it by the cord, but by the connector shell.

• When you have pulled the power plug out, do not touch the two contact pins, as the 'DCC 600' needs a few seconds to discharge.

WARNING
Do not connect the set to the power until all other connections have been made and the power supply voltage has been checked.

English

FRONT PANEL:

1 CASSETTE COMPARTMENT

2 DISPLAY

3 MARK WRITE	To write various markers.
MARK ERASE	To erase various markers.
RENUMBER	To correct the sequence of tracknumbers.
DIG./ANALOG	To select the type of the recording input.
4 RECORDING LEVEL	To adjust the record level.
5 PREV.	To rewind the tape to the beginning of the current music track.
6 STOP	To stop the tape.
7 PLAY	To play back the tape.
8 NEXT	Searching for the next music track.
9 BACKWARD	To wind the tape backward.
SIDE A/B	To select side A or side B of the tape.
FORWARD	To wind the tape forward.
10 LEVEL	To adjust the volume when using headphones.
11 PHONES	Jack for headphone connection.
12 BALANCE	To adjust the balance during recording.

13 REC. PAUSE	To interrupt the recording temporarily and to enter the RECORD PAUSE mode.
APPEND	To search a free position for recording. The unit searches a free position on the cassette, provided you have always been using the function APPEND for recording. When this free position is found, you can start recording.
REC/MUTE	– To record from your chosen audio source. – To record 'digital silence'.
14 TEXT	For displaying text information.
TIME	For selecting the time information.
C. RESET	To reset the tape counter to '0000'.
15 DOLBY B/C NR	To select the DOLBY NR functions.
16 REPEAT	To repeat the current track and to repeat the entire cassette.
17 OPEN/CLOSE	To open and close the cassette compartment.
18 IR SENSOR	Infra red remote control eye
19 POWER ON/OFF	To switch the unit on or off.

DIFFERENT TYPES OF CASSETTES

Available on the market are the

DCC (Digital Compact Cassette),
and the

ACC (Analog Compact Cassette), also called 'Music Cassette'.

Both cassettes are available in various lengths and tape materials. The 'DCC' and the 'ACC' can be used in the 'DCC 600'. The 'DCC' has a cover designed for quick and easy handling. Always keep the 'DCC' and the 'ACC' in the cover after use to avoid damages.

The 'DCC' and the 'ACC' must not come into contact with dust or liquids, and must not be exposed to high temperatures and to magnetic fields (heaters, TV sets, transformers...). Do not push the tape protection of the 'DCC' aside, and avoid touching the tape of the 'ACC'.

DCC:

When inserting the 'DCC' please observe the following points:

• Insert the 'DCC' lengthwise into the open tray.
• The inscription must be face up.
• The protective slider must be on the right side.

DCC PRERECORDED ... can be bought prerecorded in the shops and can only be played back. The prerecorded 'DCC' can display information like text, track numbers, playing times and tape counter.

DCC USER-RECORDED ... the recording will be made by you. The user-recorded 'DCC' can display information like track numbers, playing times and tape counter.

PROTECTING A CASSETTE AGAINST RECORDING

Accidental erasure of recordings made on your DCC cassettes can be prevented by sliding the red switch on the back of your cassette upward as shown below
No recording will then be possible on this tape.
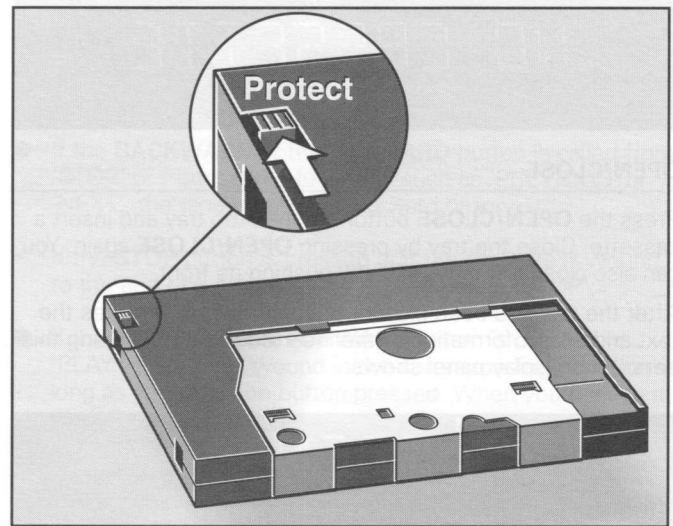
ACC:

When inserting the 'ACC' please observe the following points:

• Insert the 'ACC' lengthwise into the open tray.
• The inscription must be readable from the right side.
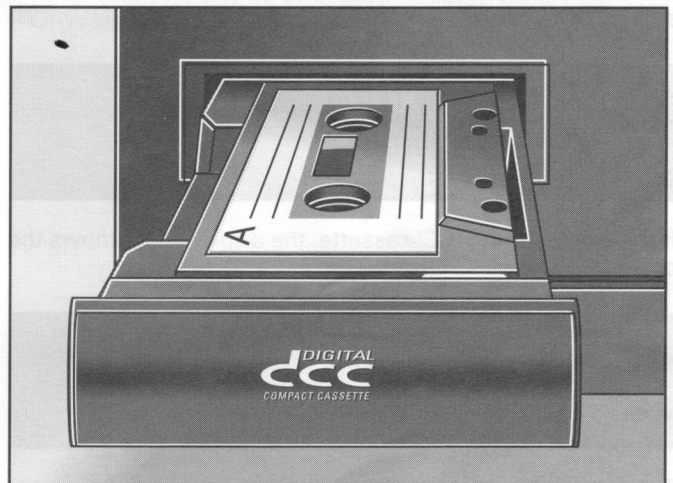
ACC ... has been recorded with an 'analog cassette recorder' and can only be played back on the 'DCC 600'. The 'ACC' can only display the tape counter.

9

English

POWER ON/OFF

Press the **POWER ON/OFF** button to switch the unit on.
After being switched on, the unit checks if a tape has been inserted.
If the unit does not find a cassette, the display panel shows:

```
NO CASSETTE
```

OPEN/CLOSE

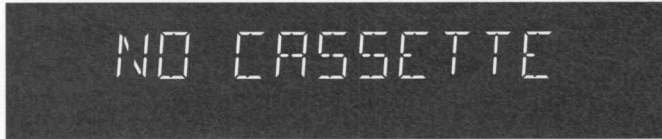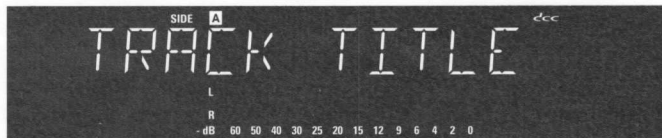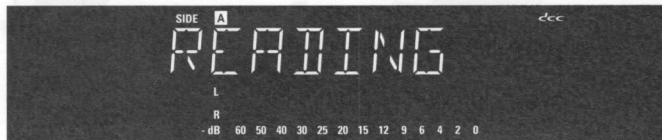Press the **OPEN/CLOSE** button to open the tray and insert a cassette. Close the tray by pressing **OPEN/CLOSE** again. You can also close the tray by briefly pushing its front.

After the tray has been closed, the unit reads and stores the text and time information of the inserted cassette. During this period the display panel shows:

```
SIDE A                    dcc
READING
L
R
-dB  60 50 40 30 25 20 15 12  9  6  4  2  0
```

```
SIDE A                    dcc
TRACK TITLE
L
R
-dB  60 50 40 30 25 20 15 12  9  6  4  2  0
```

If the unit finds a user-recorded 'DCC', the display panel shows for instance:

```
TRACK  SIDE A  TOTAL    TIME        dcc
-- --          2304
L
R
-dB  60 50 40 30 25 20 15 12  9  6  4  2  0
```
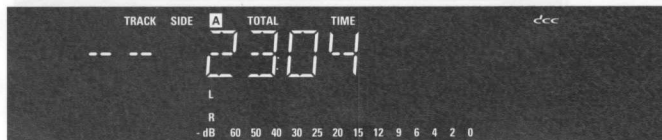
If the unit finds an 'ACC' cassette, the display panel shows the counter mode:

```
SIDE A                     cc
0000 STOP
L
R
-dB  60 50 40 30 25 20 15 12  9  6  4  2  0
```

The unit can be switched to 'STANDBY' by pressing the STANDBY button (only on the remote control).

Pressing one of the basic functions on the unit or on the remote control cancels the 'STANDBY' and reactivates the unit, e.g.: **PLAY**, **STOP**, **NEXT**, **PREVIOUS**, **FORWARD**, **BACKWARD**.

When you switch the unit off, the tape information of the cassette (various texts and times) is erased from the unit's memory. When you switch it on again, the tape information is re-read.

Notes:
The instruction to open can be given from any function with the exception of 'RECORD' and 'RENUMBER'.
While the tray is opened or closed, the display panel shows 'OPEN' or 'CLOSE'.

If a rewound DCC cassette is inserted, the unit automatically searches the beginning of the first music track.

PLAYBACK

- ● Switch the unit on.

- ● Open the cassette compartment.

- ● Correctly insert the cassette.

- ● Close the cassette compartment.

- ● The unit automatically identifies the new cassette.

- ● Press the **PLAY** button to start playback.
  The display panel shows for instance:

```
TRACK  SIDE A  TOTAL    TIME          dcc
2          753 PLAY
         L |||||||||||||
DIGITAL  R |||||||||||||
         -dB  60 50 40 30 25 20 15 12  9  6  4  2  0
```
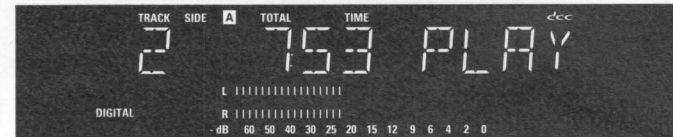
- ● To stop playback, press the **STOP** button.

- ● Open the cassette compartment.

- ● Take the cassette out.

- ● Close the cassette compartment.

- ● Switch the unit off.

You can find detailed information in the chapter 'PLAYBACK advanced'.

TRACK SEARCH RUN

With the buttons **PREV.** and **NEXT** you can search forward or backward to the required music track.
If one of the two buttons is pressed several times, the forward or backward step increases by one music track for each depression of the button.

If you choose this function in 'STOP' while the text indication is being selected, the required track is displayed. Press the **PLAY** button to select the displayed track and start playback.

If you choose this function in 'PLAY', the required track is selected and played.

* If you press the **PREV.** or the **NEXT** button with a 'pre-recorded DCC' cassette, the new music track will show on the display panel.
If the time indication has been selected, the display panel shows for instance:

If the text indication has been selected, the display panel shows for instance:

* If you choose this function with an ACC cassette, there must be a silent passage of 4 seconds between the tracks, otherwise this function will not work correctly.

If the unit knows the number of music tracks (DCC), the newly selected track cannot be higher than the highest possible on the cassette. If the current track number is not known, a flashing indication on the display indicates the backwards or forwards step, e.g.:

During the PREVIOUS and NEXT function, the unit automatically responds to different markers on the tape and and to the beginning and the end of the cassette (for better understanding see chapter 'MARKERS').

WINDING / FINDING A MUSIC PART

With the **BACKWARD** and **FORWARD** buttons, you can wind the cassette to the beginning or the end of the side with max. speed (in 'STOP').

In 'PLAY' you can find a particular part of a music track.

Note: Regardless on which side of the cassette you are on, the tape always plays forward when the **FORWARD** button is pressed.

* If the **BACKWARD** or the **FORWARD** button is called from 'STOP' or from search functions such as 'PREVIOUS' or 'NEXT', the tape is wound backward or forward.

* If the **STOP** button is pressed or if the cassette is wound to the end of a side, the unit is switched to 'STOP'.

* If the **BACKWARD** or **FORWARD** button is pressed in 'PLAY', the tape is wound in the corresponding direction as long as you keep the button pressed. When you release it, 'PLAY' is resumed.

During this function, the unit automatically responds to different markers on the tape and to the beginning and the end of the cassette (for better understanding see chapter 'MARKERS').

TO SELECT THE SIDE

You can select the side of the cassette by pressing the **SIDE A/B** button.
This function can only be selected in 'STOP', 'PLAY', 'FORWARD' and 'BACKWARD'.

1. TO REPEAT THE CURRENT MUSIC TRACK

● Press the **PREV.** button. The tape will be wound back to the beginning of the current music track.

• If the **PREV.** button is pressed during 'PLAYBACK', the unit immediately repeats the current music track.

• If the **PREV.** button is pressed during 'STOP', you should press **PLAY** to start playback.
The display shows for instance:

```
TRACK SIDE A    TOTAL      TIME                    dcc
  3      837    to  3
DIGITAL
```
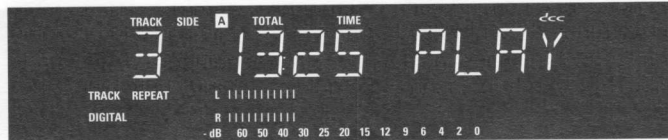
2. REPEAT IN 2 DIFFERENT MODES

The **REPEAT** button can only be pressed in 'PLAYBACK' and 'STOP' and switches between 2 different repeat modes. By pressing the same button once again, the next mode is called.

Example:

OFF -> TRACK REPEAT -> REPEAT CONT -> OFF

● Off (no indication)

● Press the **REPEAT** button (= TRACK REPEAT).
After the playback has finished the unit repeats the current music track until you stop this function (works only with 'DCC').
The display shows for instance:

```
TRACK SIDE A    TOTAL      TIME                    dcc
  3     1325      PLAY
TRACK REPEAT        L IIIIIIIIIII
DIGITAL             R IIIIIIIIIII
              -dB 60 50 40 30 25 20 15 12 9 6 4 2 0
```

● Press the **REPEAT** button again (= REPEAT CONT).
The unit repeats the entire cassette without interruption until you stop this function.
The display shows for instance:

```
TRACK SIDE A    TOTAL      TIME                    dcc
  3     1325      PLAY
REPEAT CONT  L IIIIIIIIIII
DIGITAL      R IIIIIIIIIII
              -dB 60 50 40 30 25 20 15 12 9 6 4 2 0
```

● Press the **REPEAT** button again (= STOP)
You can also stop the 'REPEAT' mode by pressing the **STOP** button.

3. DOLBY NOISE REDUCTION (NR)

> **Dolby only works with ACC for playback only**

With the **DOLBY B/C NR** button you can choose between 2 different modes. Either 'DOLBY B' or 'DOLBY C'. To call the next mode, press the same button again.

Example:

OFF -> DOLBY B -> DOLBY C -> OFF

'DOLBY NR' is a noise reduction system, which can suppress tape hiss. When the 'ACC' cassette has been recorded with 'DOLBY B', it should also be played back with 'DOLBY B'.

> **Dolby noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. 'DOLBY NR' and the double D symbol ▣▣ are trademarks of Dolby Laboratories Licensing Corporation.**

4. MARKERS

During 'PLAYBACK' the unit automatically responds to various markers and to the beginning of the cassette (for better understanding see chapter 'MARKERS').

5. HEADPHONES

The 'DCC 600' has a head phone connection at the front, suitable for 6,3 mm 'JACK PLUG'. If your head phones are equipped with such a plug, you can connect it to the jack. Adjust the volume by means of the **LEVEL** adjusting knob.

**There are two different ways to start the recording.
The following is the easier method.**

> **Remember: The prerecorded DCC and the ACC can not
> be used for recording!**

● Switch the unit on.

● Open the cassette compartment.

● Correctly insert the cassette.

● Close the cassette compartment.

● The unit automatically identifies the inserted cassette.

● Select the recording source.

By pressing the **DIG./ANALOG** button you can choose the
type of recording source, that you want to record (digital or
analog signals).
The display shows for instance:

The change-over can be carried out in any function, except
during a recording.

● Start recording.

The 'APPEND' function can only be called from 'STOP' or
'RECORD PAUSE' mode or after closing the cassette
compartment with OPEN/CLOSE.
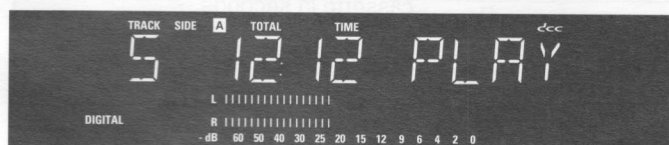
● Press the **APPEND** button.
The deck searches for the start of the tape or for the end of
the last recording. The Audio signal is muted.
The display shows:

When a suitable position has been found, the unit plays the
last few seconds of the previous recording. This function
permits you to control the position.
The display shows for instance:

If the analog input is selected, it has to be manually
adjusted by means of the **RECORDING LEVEL** adjusting
knob. Set the **RECORDING LEVEL** knob so that the red
part of the level control briefly lights up only during
dynamic passages.

After a few seconds of playback, the unit directly switches
to 'RECORD PAUSE'.
The display shows for instance:
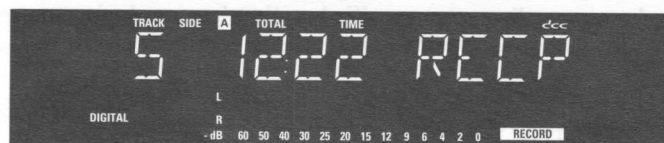
From this position, you can use the **REC/MUTE** button to
start a recording.
The time and the track number will be correctly recorded
by the unit.

If the 'DCC' is new or blank, the unit rewinds to the
beginning of the cassette, to write a 'LEAD IN MARKER'
(see chapter 'MARKERS') on the tape. The unit is then
switched to 'RECORD PAUSE'.
The display panel shows:

● At the beginning of the recording, a 'START MARKER' is
automatically written (see chapter 'MARKERS).

● Press the **REC/MUTE** button.
The display shows for instance:
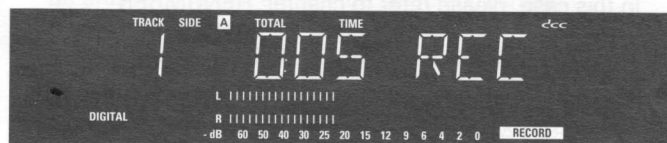
● The time is constantly recorded and the track number
automatically increased by one.

● To stop the recording for a short time, press the
REC. PAUSE button.
By pressing the **REC/MUTE** button again, the recording is
resumed.

● To stop the recording, press the **STOP** button.
The actual recording stops immediately. The deck
continues to write a marker for a short period to mark the
end of the last recording.

This procedure will ensure the correct recording of time
and tracknumbers on the tape.

1. TO START A RECORDING FROM THE 'RECORD PAUSE' MODE

We recommend this recording method, when you wish to make a recording on a specific location (e.g. replacing an old recording by a new one).

● Find first the position on the cassette from where you want to continue recording.

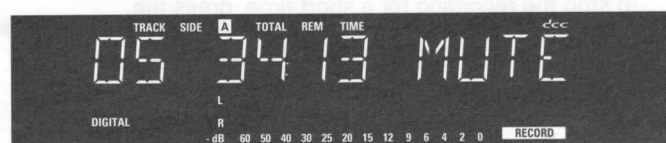● Press the **REC. PAUSE** button to enter the 'RECORD PAUSE' mode.

```
TRACK SIDE [A] TOTAL REM TIME              dcc
  5  3412 RECP
       L
DIGITAL    R
     -dB 60 50 40 30 25 20 15 12 9 6 4 2 0  [RECORD]
```

● Press the **REC/MUTE** button.
The display shows for instance:

```
TRACK SIDE [A] TOTAL     TIME              dcc
  1   000 REC
       L |||||||||||||||
DIGITAL    R |||||||||||||||
     -dB 60 50 40 30 25 20 15 12 9 6 4 2 0  [RECORD]
```

● A 'START MARKER' is automatically written at the beginning of the recording (see chapter 'MARKERS').

• If the previous track number is known, the new track number is correctly recorded.
• If the previous track number is not known, ' - - ' is shown. In this case, please refer to chapter 'RENUMBER'

2. RECORD MUTING (recording a digital silence)

● If you press the **REC/MUTE** button during 'RECORD' or in 'RECORD PAUSE' the recording is muted for 3 seconds. Then the unit switches to 'RECORD PAUSE' mode. The tracknumbers do not increase during these 3 seconds but the time counting continues.
The display shows for instance:

```
TRACK SIDE [A] TOTAL REM TIME              dcc
 05  3413 MUTE
       L
DIGITAL    R
     -dB 60 50 40 30 25 20 15 12 9 6 4 2 0  [RECORD]
```

3. MARKERS

During 'RECORD MUTE' the unit automatically responds to various markers and to the beginning and the end of the cassette (for better understanding see chapter 'MARKERS').

4. GENERAL

• If the recording starts at a blank spot (except the tape end), the unit takes the previous track number as unknown.
• To correct possible mistakes on the display, press RENUMBER button after the last recording (see chapter 'RENUMBER').
• For a precise record control, reset the tape counter to '0000' by pressing the **C. RESET** button.
• During 'RECORD PAUSE', the unit constantly tests the input signals. The copy protection is only tested when 'DIGITAL' has been selected. If the chosen record source is copyrighted, recording cannot be started.
• If 'DIGITAL' has been selected, the unit checks if a digital source has been connected. If the digital source is missing (e.g. bad cord connection), recording can not be started.

TEXT

The text information can only be called with a 'prerecorded DCC'.

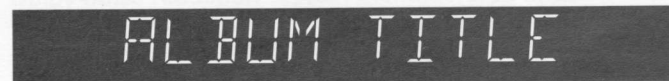● If you press the **TEXT** button, the display shows for instance:

```
TRACK TITLE
```
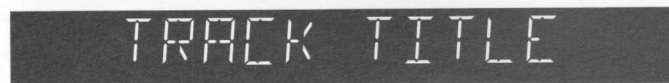
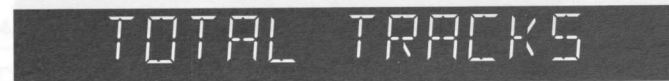After a few seconds the display will show the title of the track.

● If you press the **TEXT** button again, the display shows for instance:

```
ARTIST
```
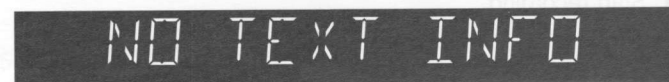
● If you press the **TEXT** button again, the display shows for instance:

```
ALBUM TITLE
```

● If you press the **TEXT** button again, the display shows for instance:

```
TOTAL TRACKS
```

• If there is no **TEXT** available the display shows:

```
NO TEXT INFO
```

TIME

The 'DCC 600' takes the time in 3 different ways. By pressing the **TIME** button, you can successively call the following time information.

TIME	... shows you the period from the beginning of the track to the current position in minutes and seconds.
TOTAL TIME	... shows you the period from the beginning of the cassette to the current position in minutes and seconds.
TOTAL REM TIME	... shows you the period from the current position to the end of the cassette in seconds.
COUNTER	... shows you the period from the beginning of the cassette to the current position revs/min.
REM TIME	... shows you the period from the current position to the end of the side. This information can only be called during 'RECORD'.

TOTAL TIME, TOTAL REM TIME and REM TIME can only be called when the recording has been made with the use of the **APPEND** button.

RESET

Pressing the **C. RESET** button resets the counter to '0000'.

Markers are special signals on the DCC tape, marking certain positions. Markers can be set automatically or manually. No makers can be set on an 'ACC'.

The most frequent markers are:

- START MARKER
- NEXT SIDE MARKER
- REVERSE MARKER

START MARKER

A 'START MARKER' marks the beginning of a music track. If this marker is written, you can easily find the beginning of the required music track.

- When you start recording, a 'START MARKER' is automatically set.
- A START MARKER is also written each time a silence of 4 seconds is detected during recording (to indicate the beginning of a new track).

- To manually write a 'START MARKER' press the **MARK WRITE** button during playback or recording. It will mark the beginning of a music track.

Caution: When you manually write a 'START MARKER', the track-numbering will no longer be correct. By pressing the **RENUMBER** button you can include the new marker into the tracknumbering.

NEXT MARKER

A 'NEXT MARKER' marks the end of the last music track on this side.

You notice that there is no more room on the current side for the next music track (e.g. no. 6) and you therefore want to continue the recording at the beginning of the second side.

- Interrupt the recording by pressing the **REC. PAUSE** button.

- Press the **MARK WRITE** button to write a 'NEXT MARKER'.
  The unit writes a 'NEXT MARKER', changes the side, **rewinds to the beginning of the tape** and writes a 'LEAD IN MARKER' (see illustration).

- Continue recording by pressing the **REC/MUTE** button. The continued recording will be included in the track-numbering as track no. 1.
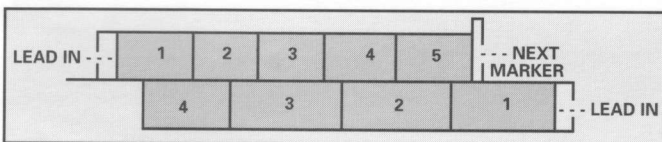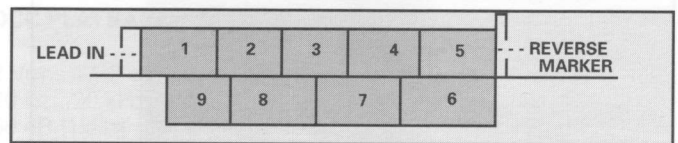

'LEAD IN' marks the beginning of the tape on side A and side B.

REVERSE MARKER

A 'REVERSE MARKER' marks the end of the last music track on this side.

You notice that there is no more room on the current side for the next music track (e.g. no.6) and you therefore want to change the side.

- Interrupt the recording by pressing the **REC. PAUSE** button.

- Press the **SIDE A/B** button.
  The unit writes a 'REVERSE MARKER' and **immediately changes the side**. The tape will not be wound to the beginning of side B (see illustration).

- Continue recording by pressing **REC/MUTE** button. The continued recording will be included in the track-numbering as track no. 6.

'LEAD IN' marks the beginning of the tape on side A.

MARKER ERASE

- Find the marker to be erased using the display.

- Press the **MARK ERASE** button just before the marker to be erased. The unit erases the selected marker.
  If the unit does not find a marker within 2.5 seconds, it switches to the previous position.

- Press the **RENUMBER** button to correct the tracknumbering.

RENUMBER

The RENUMBER function can only be used when the recording was made with the use of the **APPEND** button. Select the 'RENUMBER' function to update the sequence of tracks of the 'DCC'.
Caution: This process may take a few minutes.

- Press the **RENUMBER** button (only 'DCC user-recorded'). The unit winds to the beginning of side A and then checks both sides for their tracknumbers. If a tracknumber is incorrect or if a marker is badly set, they are corrected. The unit winds to the beginning of the first music track on side A and switches to 'STOP'. The audio signal is muted. *This function should not be interrupted!*

While the cassette is being rewound to the beginning, the display panel shows:

If the unit began with the function 'RENUMBER', the display shows for instance:

2 X 1.5 V
R03 / UM4 / AAA

The buttons on the remote control have the same functions as the corresponding ones on the 'DCC 600'.
Exception: SEARCH = FORWARD and BACKWARD

EXTRA BUTTONS

0-9 digit buttons	To select directly tracknumbers (only functional when using a 'DCC').
STANDBY	To select the 'STANDBY' mode.

BATTERIES

- Open the battery compartment and insert two batteries as indicated, type R03, UM-4 or AAA-cells.

- Remove the batteries when they have run down or when they will not be used again for a long period.

MAINTENANCE

- Pull the AC power plug out.

- Clean the 'DCC 600' with a damp cloth.

- Clean reflecting surfaces (e.g. the display panel or the head of the remote control) with a gentle window cleaner.

CLEANING CASSETTES

- In principle there is no need to clean the head of your DCC player if you use only DCC cassettes.
  The use of conventional compact cassettes of inferior quality may leave dirt on the DCC head. This can affect the sound quality of DCC cassettes.

- Special DCC cleaning cassettes are available to clean the DCC head.

- It is strongly advised not to use conventional compact cleaning cassettes as they will not clean the DCC head well enough.

> **Only use special 'DCC cleaning cassettes' for your 'DCC 600'!**
> **Do not use demagnetizing cassettes!**

PROBLEMS WITH THE WHOLE SYSTEM

If a fault occurs, read the points below before taking your 'DCC 600' for repair.

Electrostatic charge may cause unexpected symptoms, e.g. the unit does ot respond to any command.

To reset the unit:

- Switch off the power by pressing the POWER ON/OFF button.

- Switch the power on again after a few seconds.

> **WARNING**
> **If these remedies fail to help, consult your dealer. Under no circumstances should you try to repair the unit yourself as that would invalidate the warranty.**

INPUTS	**DIGITAL IN:**	
	AES/EBU format:	according IEC958
	sampling frequency:	32 / 44.1 / 48 kHz
	unbalanced phono:	75 Ohm
	ANALOG IN:	
	phono:	unbalanced
	input impedance:	50 kOhm
	sampling frequency:	44.1 kHz
	input sensitivity:	150 mVrms
	max. input voltage:	2 Vrms +/- 2dB
OUTPUTS	**DIGITAL OUT:**	
	AES/EBU format:	according IEC958
	sampling frequency:	32 / 44.1 / 48 kHz
	unbalanced phono:	75 Ohm
	ANALOG OUT:	**DCC PLAYBACK**
	output voltage:	2 Vrms +/- 2 dB
	frequency response:	20 Hz...20 kHz +/- 0,5 dB
	channel separation:	80 dB (1kHz)
	THD+N:	87 dB (1 kHz)
	SNR:	90 dB
	wow and flutter:	quartz crystal precision
	ANALOG OUT:	**ACC PLAYBACK**
	output voltage:	0,8 Vrms +1,5 dB / -0,5 dB at 200 nWb/m
	frequency response:	40 Hz ... 14kHz (5 dB)
	channel separation:	26 dB (related tracks)
	THD:	2 %
	SNR:	Dolby OFF 50 dB
		Dolby B 59 dB
		Dolby C 67 dB
	wow and flutter:	0,15 %
	HEADPHONE OUT:	**DCC PLAYBACK**
	output power:	50 mW / 600 Ohm
	frequency response:	20 Hz...20 kHz +/- 1 dB
	channel separation:	80 dB (1 kHz)
	SNR:	90 dB