

# OWNER'S MANUAL

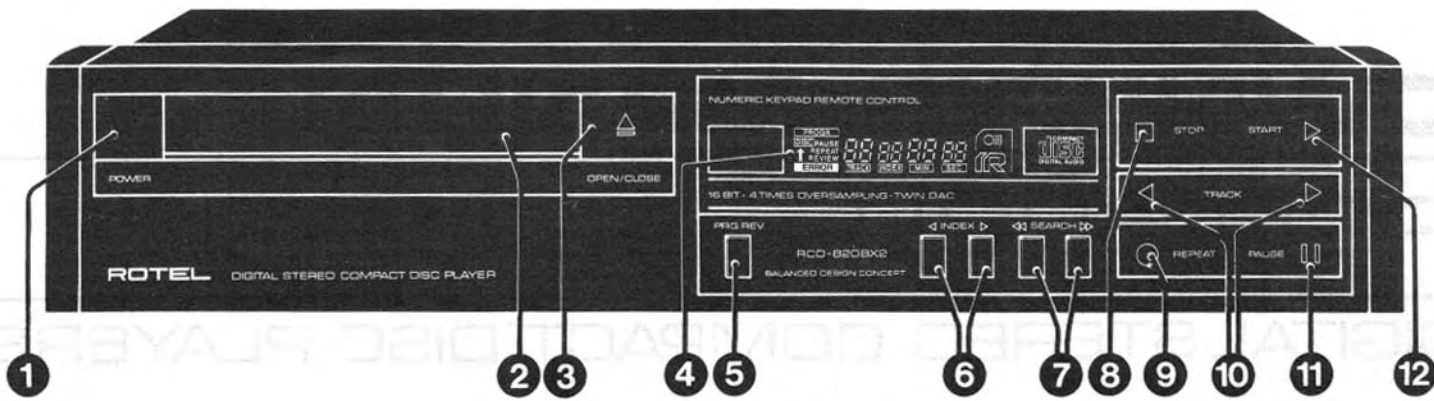
## RCD 820B and 820BX2

### DIGITAL STEREO COMPACT DISC PLAYERS

**THIS HIGH PERFORMANCE INSTRUMENT INCORPORATES MANY SELECTED HIGH QUALITY ELECTRONIC COMPONENTS AND WILL PROVIDE MANY YEARS OF OUTSTANDING SOUND REPRODUCTION.**

**OPTIMUM PERFORMANCE IS ACHIEVED AFTER A "RUNNING PERIOD" OF 3-10 DAYS, AFTER WHICH TIME, THE COMPONENTS WILL HAVE REACHED THEIR IDEAL ELECTRICAL CHARACTERISTICS.**

**TO FACILITATE THIS YOU MAY LEAVE THE CD PLAYER OPERATING IN REPEAT PLAY MODE (WITH DISC) FOR SEVERAL HOURS AT A TIME, PROVIDING THE MACHINE IS NOT LEFT UNATTENDED.**



## INTRODUCTION

We at Rotel want to thank you for purchasing our audio product. Rotel audio products are designed to use the latest electronic technology, and they incorporate our long experience as a specialist manufacturer of audio equipment. We are confident that you will find satisfaction in the high quality sound. Before starting operation, please read this instruction manual thoroughly and acquaint yourself with the proper mode of using the unit and all its connections.

## POWER SUPPLY

Follow the instructions below for maximum safety:

### USE A WALL OUTLET FOR POWER SUPPLY

Be sure to connect the AC line cord to a household wall outlet. Be certain that the wall outlet voltage matches the electrical rating of the unit, found on the rear panel.

### CONNECTING AND REMOVING AC CORD

Be sure to connect or disconnect the AC line cord only after turning off the power switch to prevent possible shock noise or damage to the speakers.

### VENTILATE THE UNIT WELL

Never block any ventilation holes at the top and bottom of the unit. Be sure also to provide ample ventilation space around the unit. Poor ventilation may result in damage due to excessive heat.

### DO NOT OPEN THE CABINET

In order to avoid electric shock or damage to the components, never open the cabinet. If a foreign object falls inside the unit by mistake, turn off power, disconnect the wall plug, and consult either a qualified electrician or your dealer.

## INSTALLATION

Be sure to place the unit on a level and flat place where it is free from humidity, vibration, high temperature and not exposed to direct sunlight. Be careful not to place the unit in a highly enclosed place.

Poor ventilation will have undesirable effects on the unit.

## MOVING THE UNIT

When transporting, remove the AC cord from the wall outlet and all other connected cords on the rear panel to prevent wire breakage and short circuits. REFIT TRANSIT SCREWS - see note 10.

## IF THE UNIT GETS WET

Should the unit get wet, immediately disconnect the AC cord, and consult either your dealer or a qualified electrician.

## CLEANING AND MAINTENANCE

Do not use chemicals such as benzene or thinners on the front panel. Always use a soft, dry cloth to clean the unit.

## OWNER'S MANUAL

Keep the owner's manual near the unit and record the serial number (found on the rear panel) in the box provided:

## REMOVAL OF TRANSIT SCREWS

Two transit screws with red plastic collars are fitted to the bottom of the player. These lock the player mechanism and disc tray to protect them during transportation. These screws and collars should be removed prior to using the player. They should be retained in a safe place and should be refitted if you want to transport your player to another location.

## CAUTION

It is important to ensure that the volume control of your amplifier is at zero before switching on or off your C.D. player

## EXCLUSIVE NOTE FOR U.K.

If your unit comes with a 2-core cable without a plug, make certain that the live and neutral leads are connected to the proper terminals. Check that the terminals are screwed down firmly and no loose strands of wire are present.

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:

BLUE :NEUTRAL  
BROWN :LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLUE or BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured BROWN or RED.

## CONNECTING TO YOUR AMPLIFIER

Using the phono cord provided connect the right and left channels of your CD player to the CD input of your amplifier. If your amplifier is not equipped with a CD input you can use either the auxiliary or tape input.

## OPERATION

Your Compact Disc player is now ready for use. Before attempting to operate it, you are recommended to familiarise yourself with the functions of the controls and the display as described briefly below. The names used here for the controls will be used throughout the text.

1 POWER key: for switching the player on and off.

2 DISC TRAY.

3 OPEN/CLOSE key: for opening and closing disc tray.

4 DISPLAY: functions as on/off indicator; gives information about the number of tracks on the disc, the playing time, the progress of play and particular functions of the player, and signals any faults occurring during operation or programming.

5 PRG. REV key: for storing the track numbers of a programme and producing the display of the programme stored.

6 <INDEX> keys: for indicating the index number you want to begin with (< from index number 99 to index 01 and > from index number 01 to index number 99); also for returning to a previous index number or moving on to a later one during play.

7 <<SEARCH>> keys: for fast search for a particular passage (<< backwards, >> forwards).

8 STOP key: for stopping play during playback (STOP) and for erasing a programme.

9 REPEAT key: for repeating a disc or a programme.

10 <TRACK> keys: for indicating the track number you want to begin with, and selecting track numbers when compiling a programme (< from high to low and > from low to high); also for returning to a previous track number or moving on to a later one during play.

11 PAUSE key: for holding play at the start of a track or passage, and for interrupting play.

12 START key: for starting play (PLAY) and returning to the beginning of a track (RESTART).

## THE DISPLAY

Because of the diversity of indications the display can show, they are described separately below.

*On/Off Indication* - As soon as the player is switched on the display lights. It goes off again when the player is switched off.

*Stand-by Indication* - At the moment that the disc tray closes, the DISC sign starts to flash to show that the player is scanning the contents list on the disc. The sign keeps flashing until this is finished.

*Track Number Indication* - As play progresses, the numbers of the tracks are shown as '1 01', '2 01' etc. above TRACK and INDEX.

*Index Number Indication* - The numbers above INDEX only change if the different parts of a track have index numbers; this is indicated in the contents list in the disc holder. They jump to '02', '03' etc. at the moment that each succeeding index number is reached.

*Elapsed Playing Time Indication* - The elapsed playing time of each track is counted in minutes and seconds as '0 00' - '0 01' - '0 02' etc. above MIN and SEC.

*Number of Tracks Indication* - When the disc tray is closed with the OPEN/CLOSE key, the highest track number on the disc appears above TRACK, for example '14' when the disc has 14 tracks.

*Total Playing Time Indication* - If you want to know the total playing time of a disc, you close the tray with the OPEN/CLOSE key. Above MIN and SEC, the total playing time then appears in minutes and seconds, for example '59 17'.

*Error indication* - If you make a mistake when operating or programming, the ERROR sign flashes. If the fault has to do with the disc, the ERROR DISC sign flashes.

*Other indications* - PAUSE and REPEAT light when you press the corresponding keys. PROGR flashes or lights continuously after the PROGRAM key has been pressed. REVIEW lights when you display a stored programme.

## ON AND OFF SWITCHING (POWER)

*Switching on* - You switch the player on by pressing the POWER key. The disc tray is illuminated, and the display lights.

*Switching off* - When you press the POWER key again, the player is switched off. All lights are extinguished.

## LOADING AND UNLOADING A DISC (OPEN/CLOSE)

*Loading* - You open the disc tray by pressing the OPEN/CLOSE key. The tray slides out automatically. Take care that the tray is not obstructed, otherwise it will stop after about 3 seconds. Should this happen, you should press the key twice in succession to bring the tray fully out.

With your hand open, and thumb and fingers extended, take the disc out of its holder and fit it, label side up, into the cradle in the disc tray.

If you want to play the complete disc, press START. If you want to start play with a specific track or index number, or first compile a programme from the disc, press OPEN/CLOSE again. The tray slides in automatically. Again, take care that the tray is not obstructed as it closes. Should this happen, the tray slides out again after about 3 seconds.

If the ERROR DISC sign flashes after the tray is closed, it means that you have either loaded the disc upside-down, or forgotten to load the disc at all, or that the disc is dirty, badly scratched or otherwise unacceptable.

**Unloading** - You open the disc tray by pressing the OPEN/CLOSE key. When unloading, hold the disc in the same way as when loading to avoid fingerprints.  
Close an empty tray by pushing OPEN/CLOSE BUTTON. The ERROR DISC sign flashes in consequence, but in this case, of course, does not indicate an operating error.  
To prevent the ingress of dust, do not leave the tray open. Also avoid opening the tray during play, unless you mean to stop the disc.

#### PLAYING THE COMPLETE DISC (START)

If you simply want to play the whole disc, close the tray by pressing the START key. Once the contents list on the disc has been read and the laser pick-up has reached the beginning of the first track, the first track number appears above TRACK and INDEX and the elapsed playing time count of the track is displayed above MIN and SEC.

As each track ends the track number jumps on, again followed by the display of the elapsed playing time count of the new track. As soon as all the tracks have been played, the disc stops and the display shows the total number of tracks on the disc and the total playing time.

#### GOING BACK TO THE BEGINNING OF A TRACK (START)

You can go back to the beginning of a track in play by pressing the START key. The track then starts again from the beginning.

#### MOVING TO ANOTHER TRACK (< TRACK >)

Any time during play you can select another track. This can be either a following track or a previous one. As soon as you have made your choice play is interrupted, to be resumed immediately the laser pick-up reaches the beginning of the selected track.

*Selecting a Following Track* - Press the TRACK > key until the desired track number appears above TRACK.

If you press TRACK > when playing the last track, the ERROR sign will flash, reminding you that there is no next track, and play will continue with the last track. If the player is in the repeat mode, the ERROR sign will not flash, and play will continue with the first track.

You can also use the TRACK > key to get a quick idea of the disc contents by listening to the beginning of each track.

*Selecting a Previous Track* - Press the < TRACK key until the desired track number appears above TRACK.

If you press < TRACK during the first track, the ERROR sign will flash, reminding you that there is no previous track, and play will continue with the first track. If the player is in the repeat mode, the ERROR sign will not flash, and play will continue with the last track.

#### MOVING TO ANOTHER INDEX NUMBER (< INDEX >)

During play you can also change to a following index number or return to a previous one. This can either be an index number of the same track or an index number of another one.

As soon as you have made your choice play is interrupted, to be resumed immediately the laser pick-up reaches the beginning of the selected index number.

If you make a mistake by selecting too high an index number, the ERROR sign will flash and play will begin with the first index number of the track.

*Selecting within the Same Track Number* - Press the INDEX > or the < INDEX key until the desired index number appears above INDEX.

*Selecting within Another Track Number* - First select the desired track number using TRACK > or < TRACK. Then press the INDEX > or the < INDEX key until the desired index number appears above INDEX.

#### BEGINNING AT ANY SPECIFIC TRACK NUMBER (< TRACK > and START)

Instead of the first track you can start play with any other track. In this case you close the tray with OPEN/CLOSE. The highest selectable track number is then shown on the display, and thus determined for you, so that errors in this respect are precluded.

Bring the number of the selected track to appear above TRACK by pressing TRACK > or < TRACK, depending on which is quicker. Then start play by pressing START.

#### BEGINNING AT ANY SPECIFIC INDEX NUMBER (< TRACK >, < INDEX > and START)

You can start play with a specific index number too. For this, you must first select the desired track number, and then the index number.

Once more close the tray with OPEN/CLOSE. By pressing TRACK > or < TRACK, bring the desired track number to appear above TRACK. Then select the desired index number using the INDEX > or the < INDEX key.

Press START as soon as the selection has been made. Play begins with the index number as shown. If you make a mistake by selecting no track number, the ERROR sign will flash when you press one of the INDEX keys. If you select too high an index number, the ERROR sign will flash when you press START, and play will begin with the first index number of the track.

#### FINDING A PARTICULAR PASSAGE (<< SEARCH >>)

During play, you can quickly locate a particular passage in a track by pressing the << SEARCH and SEARCH >> keys. While you hold << SEARCH down, the laser pick-up runs back towards the beginning, while you hold SEARCH >> down, the laser pick-up runs towards the end. By using << SEARCH and SEARCH >> alternately, you can find any part of any passage. When you release the key, play restarts at once.

During search, the laser pick-up moves at three successive speeds: for the first seconds relatively slowly, thereafter faster, and at maximum speed after approximately 10 seconds if you continue to hold down the key.

At the first two speeds the sound of the disc remains audible, though accelerated, unless you have also pressed PAUSE, after that it disappears. When searching for a passage by ear it is therefore advisable to release and re-press the key at the moment that the sound disappears; you then keep the sound as an aid to searching.

Of course, you can also search with the help of index numbers or the playing time indication; in that case there is no reason to avoid the use of the highest speed. As soon as you then reach the vicinity of the desired passage release the key momentarily to go back to the lowest speed.

If, by pressing << SEARCH, you take the laser pick-up beyond the run-in of the first track, the ERROR sign will flash and the laser pick-up will stop at the beginning of the track. The disc will continue to spin, however, so that play resumes when you release the key.

If, by pressing SEARCH >>, you take the laser pick-up beyond the run-out of the last track, the ERROR sign will flash, and the laser pick-up will jump back over the disc to about 10 seconds of playing time, and remain at that point until you release the key. This is to prevent the disc stopping unexpectedly during search.

#### HOLDING PLAY AT THE START OF A TRACK OR A PASSAGE/INTERRUPTING PLAY (PAUSE)

In all the foregoing modes you can stop the laser pick-up exactly at the start of a track or a passage by pressing the PAUSE key before giving the actual command.

To show that you have pressed PAUSE, the PAUSE sign lights. When you want to start play, press PAUSE again. The PAUSE sign goes out.

For short play interruptions, you can also press PAUSE. The disc continues to spin but the sound stops and the PAUSE sign also lights.

If you press PAUSE again, the sound will re-start at the exact point where it was interrupted. The PAUSE sign will go out.

#### REPEATING THE DISC (REPEAT)

If you want to hear the whole disc again, you must press the REPEAT key before play ends. The REPEAT sign will light, and the disc will play continuously until you either press the REPEAT key again, or press the STOP key or the OPEN/CLOSE key. In the first case the disc will play on to the end before stopping, in the other two cases play will stop at once. The REPEAT sign will go out.

#### STOPPING PLAY (STOP or OPEN/CLOSE)

To stop play before the end of the disc, you press the STOP key. The display then shows the total number of tracks on the disc and the total disc playing time.

If you also want to take out the disc you stop play by pressing the OPEN/CLOSE key.

#### PROGRAMMING

Instead of playing a complete disc, you can choose a number of track and index numbers, and play only these. You can even decide on the playing sequence.

To do this, it is necessary to store your choice in the form of a programme in the memory of the player. The memory accepts a maximum of 20 entries, which means that at most, 20 track and index numbers can be stored. Each number requires 1 entry and can only be stored once. If you exceed the maximum of 20 entries, the ERROR sign will flash to warn you that the memory is full and cannot accept any more commands.

Programming is only possible before the disc has started playing. In principle, you could therefore already store the desired programme before loading the disc in the player, but then you run the risk of erroneously programming one or more higher track numbers than actually exist on the disc. Too high numbers are certainly erased from the memory when the programme starts to play - the ERROR sign flashes at this stage - but the programme then contains fewer numbers than you expected.

We advise you, therefore, to load the disc in the tray and close it using the OPEN/CLOSE key, so that after the contents list has been read, the number of tracks on the disc appears above TRACK. The highest track number that can be stored is now determined and mistakes in this respect are therefore excluded.

To store the numbers that you want to include in a programme (these can be selected from the contents list on the disc holder), bring up each number in turn above TRACK and INDEX with the TRACK > or < TRACK key and if necessary the INDEX > or < INDEX key, using whichever is quicker, then store it by pressing the PRG. REV key.

Do not allow more than 5 seconds to elapse between releasing the TRACK or INDEX key and pressing the PRG. REV key, otherwise the microprocessor in the player will assume that you have changed your mind and the flashing PROGR sign will go out; the number can then no longer be stored. However, you can re-activate such a missed number by bringing up either the previous or the following number and then returning immediately to the one desired.

*Storing a Programme* - From a disc containing 14 tracks, you want for example to listen to tracks 7, 3, 9, 5, 12 and 10 in that order. Load the disc in the tray and close it using the OPEN/CLOSE key. When the contents list has been read, the figure '14' appears above TRACK.

Now press the TRACK > key until '7 00' appears and then press the PRG. REV key. The flashing PROGR sign now lights continuously and after '7 00' now appears a 'P' (for Programme) to show that this track has been stored; you now read '7 00 P'. Next, go to '3 00' using the < TRACK key - the PROGR sign starts flashing again - and then press the PRG. REV key again; you now read '3 00 P'. You display the remaining tracks in turn by pressing TRACK > or < TRACK, and then store them successively by pressing PRG. REV. As soon as you have stored the last track number you will see '10 00 P'. This remains until play is started.

To store index numbers, you first display the desired track number using TRACK > or < TRACK, then you choose the desired index number using INDEX > or < INDEX and thereafter you press PRG. REV. If you make a mistake and store a wrong number, you can rectify this by going to the previous or following number, returning to the wrong one and then pressing the PRG. REV key again. To show that the wrong number has been erased, the 'P' behind it is replaced by a 'C' (for Clear). Using our example: you have stored '4' instead of '5'. You go to '3' using the < TRACK key, return to '4' using TRACK > key and then press the PRG. REV key. You will then read '4 00 C'. Now proceed by storing '5'.

During programming, or when you have finished programming, you can check the contents of the programme by pressing the PRG. REV key. The REVIEW sign then lights and all the numbers appear in the programmed sequence, after which the last stored number is once again displayed and the REVIEW sign goes out. In our example: '7' - '3' - '9' - '5' - '12' - '10' - '10 00 P'.

When, after pressing PRG. REV, the ERROR sign flashes, this means that no number is stored.

If you decide that the programme contains a number you do not want, you can always erase it by displaying it and then pressing PRG. REV.

To erase the whole programme, press the STOP key.

*Playing a Programme* - During programmed play, all player functions remain operative, except beginning at any specific track or index number.

You start play by pressing START; the first number of the programme then appears above TRACK and INDEX and the PROGR sign remains alight. The progress of play can be followed by the changing of the numbers above TRACK and INDEX. You can see at any time the numbers of the tracks and indexes still to be played when you press PRG. REV: the REVIEW sign lights, and the number which is playing appears, then all the remaining numbers are shown consecutively, after which the REVIEW sign goes out. During programme repeat the numbers already played are also shown.

You can go back to the beginning of a number by pressing START

If you want to go on to a following number in the programme, press TRACK >

To go back to a previous number in the programme, you press < TRACK

Searching for a particular passage using << SEARCH and SEARCH >> is limited to the space between the beginning and end of the number being played; you cannot move the laser pick-up outside these limits. This is to prevent arrival in another number, either programmed or not programmed, which would upset the programme. Arrival at either limit is indicated by the flashing of the ERROR sign, upon which the laser pick-up stops until you release the key.

To hold play at the beginning of a number or a passage, or to interrupt the programme, press PAUSE. If you want to repeat the programme, press REPEAT.

When all numbers of the programme have been played the disc stops. However, the programme is retained in the memory until you open the tray; only then is it erased; the PROGR sign goes out at this stage.

The programme is also erased if you press the STOP key during play.



# SPECIFICATION

## TYPICAL PERFORMANCE PARAMETERS (RCD-820B AND RCD-820BX2)

Frequency Response	20 – 20,000Hz + – 0.08 DB
Dynamic Range	96 DB
Signal-to-noise Ratio	100 DB
Channel separation	100 DB
Total harmonic distortion	0.0025% (20-20,000Hz)
Wow and flutter	Quartz crystal precision
D/A conversion	Four times oversampling (176.4KHZ) with digital filter and two 16 bit D/A converters
Error correction system	Cross interleaved reed solomon code (CIRC)
Audio output level	2 Volts RMS
Power requirements	120 V/60 Hz, 220 V/50 Hz, or 240 V/50 Hz. See rating label on rear panel.
Dimensions (overall)	444 (W) x 87 (H) x 300 (D) mm

### REMOTE CONTROL (Where fitted)

The Rotel CD remote control allows you to duplicate the majority of operating functions from the comfort of your armchair. The control buttons should be used in accordance with the instructions for the player itself. In addition however, the numeric keypad enables the track number to be keyed in directly, either when selecting a specific track or compiling a programme.

These sequences of operations unique to the remote control are described below:

#### SELECTING A SPECIFIC TRACK

Firstly key in the number of the track and then press "PLAY".

#### COMPILING A PROGRAMME

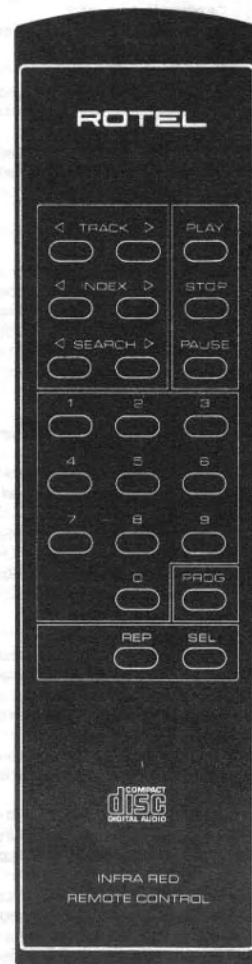
Key in the desired track number followed by "PROG". Do this repeatedly with each required track number to complete the compilation. You may then press "PLAY".

#### STARTING FROM A SPECIFIC INDEX NUMBER

Firstly key in the required track number, press "SEL", key in the desired index number, and then finally press "PLAY". If you wish to include index numbers in the compiled programme, the sequence is as follows:

Key in the desired track number, press "SEL", key in the desired index number and press "PROG". Repeat this sequence with the subsequently required track and index numbers until the compilation is complete. Finally press "PLAY".

HANDSET POWER REQUIREMENT: 3 x 1.5V Batteries (AAA size)



**ROTEL** <sup>®</sup> *hi fi*