

**BETRIEBSANLEITUNG
CD-PLAYER EVOLUTION CD2**

**OPERATING INSTRUCTIONS
CD-PLAYER EVOLUTION CD2**



DEAR AVM CUSTOMER,

thank you for the trust you have shown in us with the purchase of this Evolution CD2 unit. You have acquired a versatile hi-fi component with absolutely excellent sound qualities.

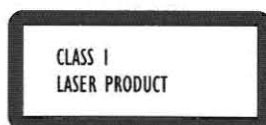
It is understandable that you would like to immediately start listening to the music. Despite this we advise you to show some patience; you will find that this will stand you in good stead.

Before you take this equipment into use for the first time you should thoroughly read this operating manual. It will ensure that the equipment can be optimally used to give you a great deal of untroubled pleasure. We have made every effort to include in this manual all the necessary information for providing assistance to operate the equipment. Please contact us in writing or by telephone if you have further questions, if the answers are not to be found here. We will make every effort to provide you with assistance.




CAUTION:

This unit contains a class I laser diode. Never open the casing or remove any covers otherwise invisible laser light could cause damage to the eyes. All maintenance should be carried out by qualified service personnel.



Laser diode	Type	:	Ga-Al-As
	Wavelength	:	755 - 815 nm (25°C)
	Laser performance	:	max. 0.7mW (continuous rating)

CERTIFICATE OF CONFORMITY

We confirm that the equipment described in these operating instructions conforms to the EU regulations applicable at the time of print permitting it to bear the sign 

All relevant tests achieved positive results.

TIPS:

To produce the connections between individual units of your hi fi equipment and the CD2 only use high quality digital cabling not exceeding 50 cm in length. Near-by placed radios or televisions can otherwise suffer reception interference. If optical cable is used as a digital connection the length of the cable is not critical.

THE CONCEPT OF THE EVOLUTION CD2

The CD2 has been optimized to a sure and extremely jitter free read out of the digital information whereby the quantity of information is unmistakably defined by the CD format 16 Bit/44.1kHz at the converter input. Additional information in the sense of a higher resolution or an extended frequency range is not achievable. Most of the currently used digital/analogue (D/A) converters are not able to completely convert the information offered on the CD to analogue signals for the following reasons.

An in built problem with systems when re-converting digital information is the so-called quantization noise. This results from slight inaccuracies displayed by the discrete existing values in comparison to the original analogue signal. With the CD format these inaccuracies are defined by the 16 Bit word breadth, in other words that during the production of the CD a pendant with a maximum resolution of 65,536 stages is attached to the analogue signal. If an analogue signal lies between these stages a principle error occurs during recording which limits the achievable tonal quality. The recording is therefore produced with a far greater resolution than can actually be stored on the CD in an attempt to minimize the error.

The remaining inaccuracies are randomly distributed and become apparent during re-conversion as an evenly distributed noise over the useful frequency band. This noise limits the dynamic characteristics approaching the lower ranges and leads to concealment of the fine information held on the CD. If the digital signal is upsampled to a higher frequency prior to re-conversion the quantization noise is distributed over a greater frequency spectrum. However because the noise energy remains constant the greater noise band width leads to a lower noise level. A large part of the noise is now situated outside the relative audio frequency band and can be filtered out relatively easily. This does not mean that new information is gained however that part of the information that was previously covered by the noise becomes audible.

For this reason the digital signal of the CD2 is upsampled to 24 Bit/96 kHz prior to the D/A conversion. The enlargement of the word breadth to 24 Bit leads to a clear reduction of the quantization noise of the D/A converter.

At the end of the frequency range the low frequency signals must be filtered to separate aliasing components from the useful signal. The filtration causes drastic phase shifts under normal circumstances which can be detrimental to the spatial image. Aliasing components become apparent from a frequency of 22 kHz with standard CD format. This makes the employment of steep sloop analogue filters of a high order necessary which lead to an increase of the phase- and amplitude distortions. In comparison upsampling to 96 kHz aliasing components first become apparent beyond 48 kHz. This means that impulse optimized filters can be utilized which treat the analogue signal with great care within the audible range. Phase- and amplitude distortions do not occur and the tonal image remains correctly pitched and stable.

Special attention was paid to the minimization of jitter. Deviation in the pulse rate of the digital signal is known as jitter. These deviations, which are for the most part caused by the drive, results in the offered information being processed at the wrong moment of time. This causes distortion and noise in the analogue range that in their turn are responsible for faded and slightly roughened tonal characteristics.

There are many ways of ensuring that the offered information is processed in its exact chronological sequence. AVM has decided to proceed along a radical and uncompromising path. All of the clock pulse frequencies that are necessary for signal processing are generated in a special module that is not timed by a normal quartz crystal but instead by a high precision quartz oscillator. It can be assured through this that the

relativity of the needed frequencies always remains exactly equal and therefore all assemblies are optimally synchronized.

By the use of upsampling the stream of information is independent of the 44.1 kHz clock pulse. Intermediate storage in a buffer followed by its chronologically correct output ensures that the converter is not affected by drive induced jitter.

The front of the CD2 is clearly defined and contains all of the operating elements necessary for the basic functions. This permits clarity and simplicity of operation. Of course the CD2 can do much more: Title programming and special functions, such as the ability to switch the digital filter, are available through the remote control.

MECHANICAL CONSTRUCTION

The modules, power supply, drive controller, output stages are situated on separate IC boards. This reduces mutual influence to a minimum. The casing of the CD2 is manufactured from magnetically protecting steel plate. The built-in power transformers are of the low-scatter toroidal type.

The output sockets of the CD2 have surface treated contact areas to promote good contact and durability. Epoxy resin circuit boards and the use of selected brand named, high quality components ensure that you will have a lot of enjoyment from your AVM CD2.

THE POWER SUPPLY

In the same way that we believe that separation of the drive and the D/A converter provides an optimal tonal solution due to the absolute freedom from reaction it is also our opinion that the individual modules of a CD player should not mutually influence each other. For the reason the CD2 has two power supplies that are fed from low impedance toroidal transformers. One is mainly for the supply of the servo electronics or alternatively the audio digital section whereas the other delivers current to the D/A converter and output stages

THE DIGITAL SECTION

The output signals of the drive are received by the sampling rate converter CS 8420. This increases the pulse rate of the data bits from 16 Bit/44.1 kHz to 24 Bit/96 kHz or alternatively 24 Bit/88.2 kHz. This integrated circuit removes any existing jitter completely from the signal (up to the physically unavoidable minimum) before it passes it to the digital filter.

The digital filter situated behind the sampling rate converter ensures that unwanted frequency components (aliasing) are removed from the signal flow. For this purpose two filter variations are available. In the selection "sharp" the signal amplitude falls steeply at the end of the transmission range whereas the selection "slow" causes a flatter fall off of the amplitude towards the cut-off region. With both variants the complete audio bandwidth is retained so that you can adjust the tonal qualities of the CD2 to your listening preferences.

Besides this the digital filter increases the sampling frequency by a factor of 8 (oversampling) through extremely fast calculation of intermediate values, thereby permitting the analogue filter at the converter output to be laid out in as considerate a manner as possible with regard to phase and amplitude. All necessary pulse frequencies are produced by a mutual, extremely precise pulse generator.

The audio digital information is available in CD standard format (16 Bit/ 44.1kHz) on each of the three digital outputs.

THE DIGITAL/ANALOGUE (D/A) CONVERTER

The raw data from the digital filters is passed discretely through separate channels to the D/A converters. We install only pre-selected Burr-Brown PCM 1704 converters. This high precision parallel converter is considered to be the best product available on the market. Strict selection procedures and careful laser trimming of the converter by the manufacturer ensures constant high tonal quality of the CD2.

THE ANALOGUE-FILTER

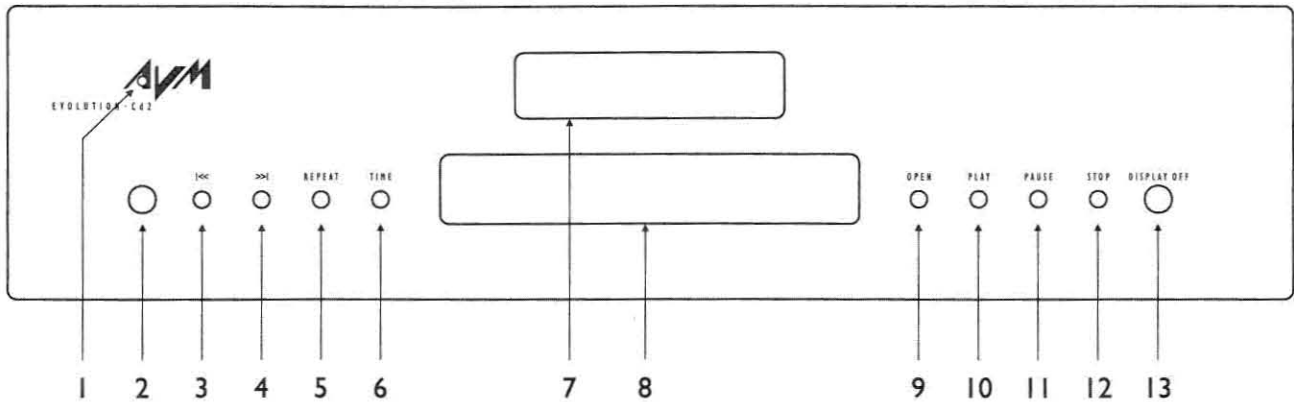
Filtering the signals after conversion ensures that unwanted frequency remnants (aliasing, sampling frequency) are removed from the converted audio signal. We regard filtering to be very important. The way in which filters work with phase and amplitude of the signals can have serious effects on the tonal quality of a D/A converter. We have created a filter that causes no amplitude or phase errors within the audio frequency range. This was possible because upsampling means that aliasing components are only to be expected after half of the sampling frequency has been reached ie. initially after 48 kHz or 44.1 kHz. By employing 8 x oversampling in the digital filter these limits are displaced even further upwards.

THE ANALOGUE OUTPUTS

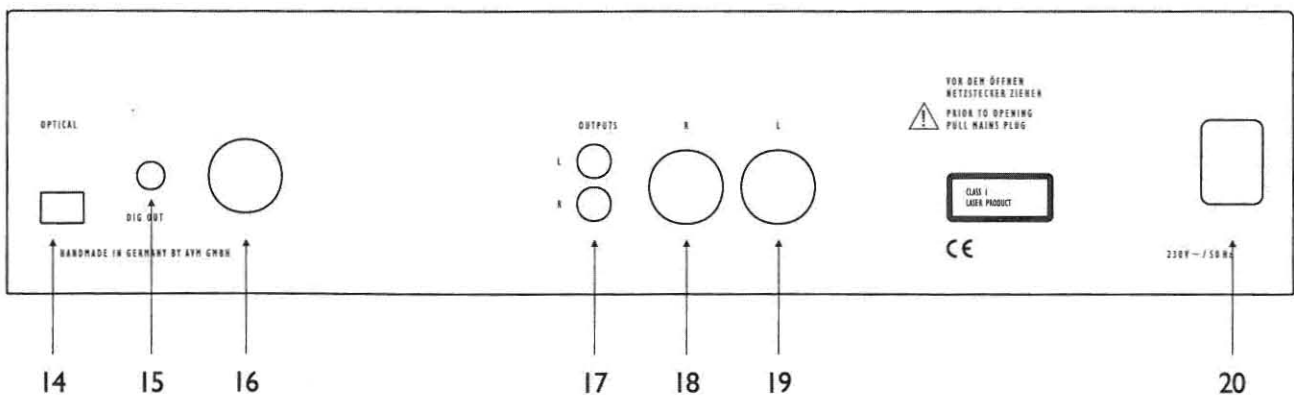
The Cinch or XLR analogue outputs of the CD2 possess two discretely constructed power amplifiers. Their great ability to provide a current supply coupled with their low output resistance ensures precise transmission of the musical signals to the pre amplifier. The phase position of the output signal can be rotated through 180 degrees via the remote control.

THE OPERATION OF THE EVOLUTION CD2

In the text you will find numbers behind the descriptions of the individual operating elements. These relate to the following diagrams.

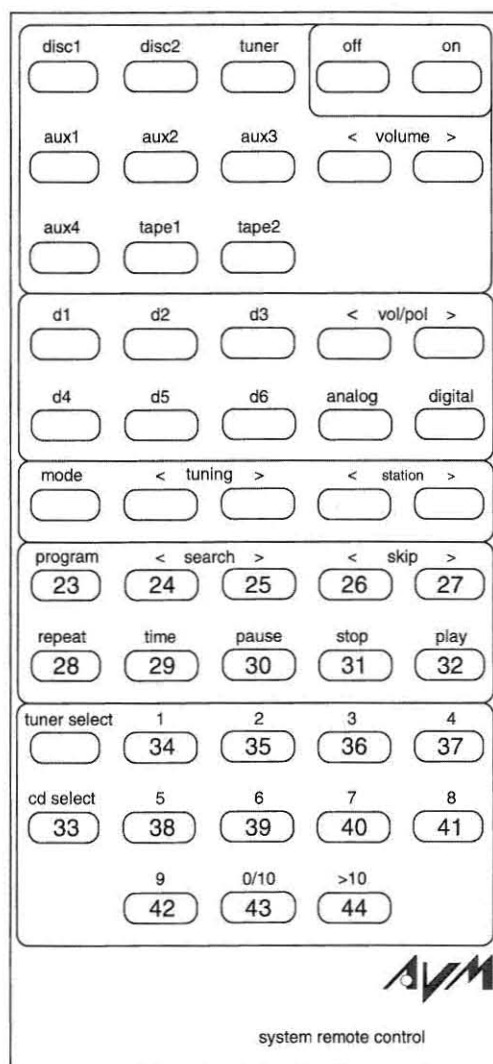


- 1 Operation control LED
- 2 On/Off switch
- 3 Title select button and continual reverse search
- 4 Title select button and continual forward search
- 5 REPEAT button
- 6 Button for alteration of the TIME display
- 7 Display window
- 8 CD tray
- 9 Button for opening and closing the CD tray - OPEN
- 10 Button to commencement of the play procedure - PLAY
- 11 Button for activation /deactivation of the PAUSE function
- 12 Button to end the play procedure and deletion of programming - STOP
- 13 Button to switch off the display - DISPLAY OFF



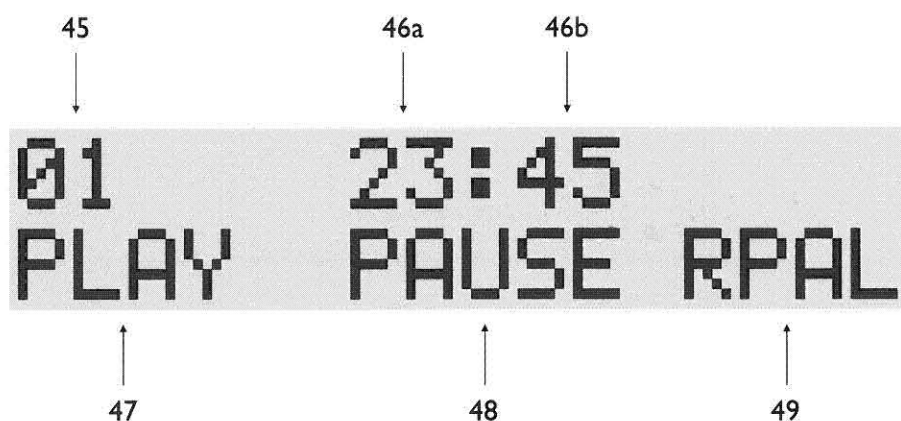
- 14 Optical digital output
- 15 Cinch digital output
- 16 XLR digital output
- 17 Cinch analogue output
- 18 XLR analogue output right
- 19 XLR analogue output left
- 20 Power supply socket

SYSTEM REMOTE CONTROL



- 21 Button to switch off the CD2 OFF (Stand by)
- 22 Button to switch on the CD2 - ON
- 23 Button to activate the programming function - PROGRAMM
- 24 Button for continuous reverse searching - SEARCH
- 25 Button for continuous forward searching - SEARCH
- 26 Button to select previous title - SKIP
- 27 Button to select following title - SKIP
- 28 Button to repeat title play - REPEAT
- 29 Button to select time display alteration - TIME
- 30 Button to switch on/off the pause function - PAUSE
- 31 Button to end play procedure and delete the programming - STOP
- 32 Button to start the playing procedure - PLAY
- 33 Button to change numeric block to CD SELECT
(always press the button "cd select" in conjunction with the required numeric button)
- 34-42 Buttons for programming with the numbers "1 to 9"
- 43 Button for programming the number "10 "
- 44 This is the button to program two figure numbers above 10 - ">10"

DISPLAY



- 45 Display of title number
TRACK ? during programming
- 46 a, b Playing time - minutes and seconds
- 47 Display PLAY during reproduction
Display PLAY (Program PLAY) by reproduction of programmed titles
Display STOP
Display PROGRAMMING during title programming
- 48 Display PAUSE
- 49 Display REP I during repeat of the previously played title
Display RPAL (repeat AL) during repeat of the complete CD or all programmed titles

PLACEMENT OF THE UNIT / COOLING

Place the CD2 unit so that the CD tray (8) has at least 15 cm clearance to the front. This will ensure that the tray can open and close without hindrance.

The CD2 produces little warmth during use. Installation in a rack therefore causes no problems. When placing in a cabinet please ensure that free air circulation is possible. We recommend that the unit is placed where it is protected from direct sunlight. This ensures that the display is easily legible and the effectiveness of the remote control unit is not affected by extreme sunlight. The CD2 should of course not be placed in close proximity to heating appliances or in a damp environment.

If you are placing other units above or below the CD player then please ensure that 1 cm distance is maintained between the units and your CD2. If necessary place additional spacers beneath the unit's feet to provide the necessary distance.

POWER SUPPLY

Insert the mains plug (20) into a ground-contact-socket or. Please leave the CD2 switched off (button 2 in off position) until all other parts of the equipment are connected.

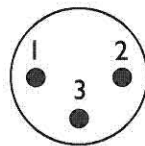
CONNECTION OF THE CD1 PLAYER TO A PRE AMPLIFIER OR INTEGRATED AMPLIFIER

Connect one of the outputs (17 to 19) with a suitable cable to a high level input of your pre amplifier or integrated amplifier.

The outputs are mutually uncoupled and both are available for use.

The provision of the CD2 player with both cinch and symmetrical XLR-outputs means you are entirely free in your selection of the cabling to your pre amplifier or integrated amplifier. If at all possible we recommend symmetrical connection, but even cinch cables will produce excellent tonal connections, provided good quality cable is used.

Connection of the symmetrical screen life return (XLR) analogue output



- 1 Ground (screen)
- 2 Signal-plus
- 3 Signal- minus

CONNECTION TO A D/A CONVERTER OR THE DIGITAL INPUT OF A PRE- OR INTEGRATED AMPLIFIER

Connect one of the outputs (14 to 16) with a suitable cable to one of the digital inputs of your D/A converter or amplifier.

IMPORTANT: Never connect the digital outputs to the analogue inputs of an amplifier. This can lead to interference of other musical sources because of the resultant high frequencies and could damage your amplifier and the loud speakers.

TIP: We recommend that the connections should be made with symmetrical cable (AES/EBU) or 75 Ohm coaxial cable. In our experience these provide the best audio results.

Use only cables with a length not exceeding 50 cm. Longer cables could lead to reception interference of radio or television equipment in close proximity.

Under no circumstances should coaxial or optical cable be sharply bent or kinked. This could cause audible interference (interference noises) or completely prevent passage of the signal.

CONNECTION TO DIGITAL RECORDING DEVICES

The CD2 has various outputs. This means that in addition to the connection to a D/A converter or the digital input of an amplifier the unit can be connected to the digital input of a DAT recorder or other digital recording equipment. The cable connections should be undertaken as described above. Please also pay attention to the operating instructions of your digital recording apparatus.

INITIAL OPERATION/BASIC FUNCTIONS

SWITCH ON POWER SUPPLY

Switch the CD2 and other equipment on and set the input selection switch of your amplifier or D/A converter to the input to which your CD2 is connected.

Subsequent initially switching on your power supply switch (2) the CD2 requires about 5 seconds until all working voltages have built up and the internal processor has checked all functions. During this time "5 SEC WARM UP" appears in the display.

TIP: If the display remains blank after initially switching on the CD2 unit, although the control LED (1) is illuminated, try pressing the DISPLAY OFF button (13).

IMPORTANT: Even though the unit is switched off it is still connected to the power supply. The mains plug should always be disconnected to separate the unit from the power supply on occasions such as thunderstorms, or long absence.

OPEN THE CD TRAY, INSERT CD, CLOSE TRAY

Following the warm-up and testing phase the display shows "STOP". You can now open the tray by pressing the button **OPEN** (9).

Place the CD with the glossy side facing downwards (printed side facing upwards) in the depression of the turntable.

TIP: Remove any particles (dust, crumbs) from the surface of the CD with a soft brush or a lint free cloth prior to insertion.

Further pressing of the button **OPEN** (9) causes the CD2 to close the tray with the CD. After a few seconds the display (7) will indicate at top left the number of titles on the CD and to its right the total playing time in minutes and seconds (separated by a colon). After approximately 10 seconds the title number "01" and the playing time "00.00" is displayed.

TIP: Opening the tray will cancel all pre-programmed functions (REPEAT, title selection with PROGRAM, TIME etc).

STARTING THE PLAYING PROCESS

Pressing the button **PLAY** (10) will start the playing process with title number 1. The display indicates "PLAY". If the CD2 had been previously programmed the display "PPLAY" (Program **PLAY**) is visible.

TIP: If the button **PLAY** (10) is pressed while the tray is open the tray will close and automatic replay of the inserted CD will begin with title number 1.

SELECTION OF CERTAIN TITLES AND SEARCH WITHIN THE TITLE

If you have pressed the buttons marked with |<< or >>| (3 or 4) before the button **PLAY** (10) is pressed replay will start at the selected title. During replay short pressure on the buttons |<< or >>| will select either the previous or subsequent title as required. Extended pressure of these buttons will activate fast forward and reverse. In this manner it is also possible to seek and play selected passages from a musical piece. Musical replay continues during fast selection mode.

TIP: If your CD2 is already playing a piece of music it is possible to return to the start of the musical piece by pressing the button |<< (3) once. To proceed to the previous musical piece you must then immediately re-press the button |<< (3).

The repeat function

Pressing the button **REPEAT** (5) will activate the repeat function. A single pressure will cause the previously played piece to be repeated (the display shows REP 1). Double pressure will ensure that the complete CD (or all programmed titles) is repeated (display shows RPAL). A third pressure will cancel the repeat function.

In mode the entire CD (alternatively the entire programmed pieces) will be repeated when the button is pressed once. (the display shows RPAL) whereas a second pressure deactivates the repeat function.

THE PAUSE FUNCTION

Pressing the button **PAUSE** (11) will interrupt the replay process. The display will show in the lower row "PAUSE". Musical replay will continue after renewed pressure of the button.

TIME DISPLAY FUNCTION

Pressing the button **TIME** (6) during play back (PLAY) will activate the time display function. A further pressure will display the word "TOTAL" and the remaining playing time of the complete CD. If the button is pressed twice the word "TOTAL" is displayed and the total played time is shown in minutes and seconds.

In **REPEAT** 1 and in **PROGRAM** mode the time display function is limited to showing the played time of the musical piece.

END OF REPLAY AND CANCELLATION OF PROGRAMMING

Pressing the button **STOP** (12) ends the replay process and cancels any previously programmed functions such as REP I, RPAL, TIME, PAUSE etc. **OPEN** (9) will have the same effect and additionally open the tray.

If the button **STOP** (12) is pressed once while the unit is in the mode PPLAY (Program **PLAY**) the CD2 will stop playback and permit programming of additional titles to those already selected. By pressing the button **STOP** (12) twice in short succession programming is cancelled and the CD2 will stop (STOP will be displayed).

SWITCHING THE DISPLAY ON OR OFF

If the illumination of the display is disturbing it can be switched off by pressing **DISPLAY OFF** (13) at any time during playback. Renewed pressing of the button reactivates the display. The display will light up for a short period when one of the functions (e.g. title skipping etc) is being operated, even in the condition **DISPLAY OFF**. The display is constantly illuminated if the CD2 is in **STOP** or **PAUSE** mode despite the button **DISPLAY OFF** having been activated.

REMOTE CONTROL / PROGRAMMING (OPTIONAL AVAILABLE)

The system remote control enables programming, direct title selection and further functions of the CD2 in addition to the basic functions.

GENERAL DETAILS OF THE REMOTE CONTROL

The desired functions can be obtained through pressing the relevant buttons on the remote control transmitter. Always direct the remote control at the display window (7) of the CD2. This is the location of the infra-red receiver.

SWITCHING ON

Operation of the button **ON** (22) will switch the CD2 unit on. The equipment is immediately ready for use. The "WARM UP" phase described in the section "Switching on the power supply" is reduced to about 2 seconds.

SWITCHING OFF

The CD2 unit will go to stand by mode after activation of the button **OFF** (21). The display extinguishes. The control LED (1) remains illuminated. The mains supply power requirement of the CD2 is reduced to less than 1 Watt.

TIP: While in stand by mode the unit cannot be operated via the remote control (or directly on the unit) until the remote control button **ON** (22) is reactivated.

IMPORTANT: The CD2 is not disconnected from the mains power supply in stand by mode. We recommend that you disconnect the mains plug from the power supply. This will prevent damage to the unit during thunderstorms or prolonged absence (holiday etc).

BASIC FUNCTIONS

The functions of the buttons **REPEAT** (28), **TIME** (29), **PAUSE** (30), **STOP** (31) and **PLAY** (32) are the same as the functions activated by the buttons on the front of the CD2 unit (see above).

Press the button **SEARCH▲** (25) or **SEARCH▼** (24) to activate the functions "fast forward" or "fast reverse". Desired parts of a musical title can be sought in this way. Musical play continues during fast forward and reverse.

Pressing the button **SKIP▲** (27) or **SKIP▼** (26) activates the skip-title function. If a title has been selected by using the **SKIP** buttons (26, 27), replay will commence at the selected title by pressing the button **PLAY** (10 or 32). Previous or following titles can be selected during play by short pressure on the **SKIP** buttons (26, 27).

TIP: If a title is already being played on your CD2 unit a short pressure on the button **SKIP▼** (26) will start replay of the music from the beginning of the piece. If you wish to select the previous title immediately press the button **SKIP▼** (26) again.

DIRECT TITLE SELECTION

After inserting the CD and closing the tray a title can be directly chosen with the relevant remote control button. To do this you press the button bearing the selected title number. The CD2 searches for the beginning of the selected piece and play begins immediately.

If you wish to select titles with a selection number greater than 10, simultaneously press the buttons cd-select (33) and the button >10 (44). Then enter the first digit followed by the second digit. For this purpose the button 10 (43) represents the number zero "0". (Example: to select the title numbered "23" simultaneously press buttons cd-select and >10 (44) followed by the buttons cd-select (33) with 2 (35) and cd-select (33) with 3 (36).

TIP: To economize on space the remote control has only one numeric block. To operate your CD player you must always press the buttons cd-select AND the required numeric button simultaneously.

PROGRAMMING

Firstly press the button **PROGRAM** (23). If the CD2 is already playing this will automatically open the sub menu for selection of the special functions polarity, filter characteristics of the digital filter and the sample rate of the D/A converter (see special functions below).

If you press the button **PROGRAM** (23) when the drive has stopped the bottom row of the display shows "PROGRAMMING" and in the upper row the word "TRACK" together with the actual title number (Track 01). You can now enter the numbers of the selected titles in sequence by pressing the relevant numbered buttons on the remote control. The button **PROGRAM** (23) should not be pressed during this procedure. A maximum of 20 titles can be pre programmed. If this number is exceeded any further entries will not be processed and the display will show the programmed contents of the memory. For example: if 20 titles have already been stored an attempt to program a further title will lead to the display of the programmed contents of the first section of the memory.

To select titles with a number greater than 10, firstly press the button **cd-select** (33) together with the button **>10** (44) followed by the first number and second number of the selected title. For this purpose the button **10** (43) represents the number zero "0" . (Example: to select the title numbered "23" press button **cd-select** (33) and **>10** (44) followed by the buttons **cd-select** (33) with **2** (35) and **cd-select** (33) with **3** (36).

When a title number has been entered the display will indicate the title number you have chosen for a few seconds (as two digits in the upper row eg "TRACK 23"). After approximately 5 seconds the upper row of the display shows the title number currently programmed (45) and to the right of this the playing time in minutes and seconds (46a) and the remaining programmed titles(46b). If the title number is blinking this signifies that the CD2 is awaiting the entry of the second digit of a two digit title number.

To prematurely discontinue the programmed function press the button **STOP**.

To delete all pre programmed titles prior to re programming press the button **STOP** (12, 31) followed by the button **PROGRAM** (23).

PLAYBACK OF PROGRAMMED TITLES

Once title programming has been completed the playback process can be started by pressing the button **PLAY** (10, 32). During play the CD2 will show "PPLAY" (Program **PLAY**) instead of "PLAY".

The significance of some of the functions can alter during playback as follows: Title skipping to the previous or following title follows the sequence of the programmed titles, and not the numerical sequence of the CD. Fast forward and reverse does not follow the title numbers (e.g. from the end of title 3 to the start of title 4) but stops at the beginning of every title. Pressing the **STOP** buttons (12,31) once will end playback without extinguishing the programming. Pressing the button **STOP** (12,31) twice will open the CD tray and delete the programming.

SPECIAL FUNCTIONS

If you press the button **PROGRAM** (23) during playback or the CD2 is pausing a sub menu is opened which offers the following special functions.

Polarity

With the buttons **SEARCH▲** (25) or **SEARCH▼** (24) the phase position of the output signal can be rotated through 180°. By pressing the button **SEARCH▼** (24) the phase position of the output signal is inverted and in the lower row of the display a minus sign ("-") appears under the word "POL". The output signal reverts to its normal phase position when the button **SEARCH▲** (25) is pressed. In the display a plus sign ("+") appears.

Filter characteristics

With the buttons **SKIP▲** (27) or **SKIP▼** (26) you can change over the filter characteristics of the digital filters. By pressing the button **SKIP▼** (26) the "slow" variation is selected. In the display the word "slow" appears beneath the entry "FILT". With the button **SKIP▲** (27) the "sharp" variation is selected. This again is shown in the display under "FILT".

Both filter variations are only distinct from each other, due to the different calculation statements, in their tonal qualities or the "musical flow", because, in contrast to conventional CD player concepts, the entire audio frequency band is transferred. This applies even to the flat sloping flank of the "slow" filter.

Sampling rate

By pressing the button **TIME** (29) the sampling frequency of the D/A converter can be changed between 96 kHz and 88.2 kHz.

To leave the sub menu press either the button **PROGRAM** (23) again or any other button that is not required in the selection of options within the sub menu.

TIP: All selection made in the sub menu are retained even when the CD2 is switched off at the main switch (2). These selections are only extinguished when the CD2 is completely separated from the mains power supply.

CARE OF THE CASING

The surface and printed text on the casing are largely scratch resistant. The casing may be cleaned with a mild soap solution or spirit based glass cleaner (use economically) and a soft lint free cloth.

NOTE: Care should be taken during cleaning to ensure that no liquids can ingress into the casing. It is advised for safety reasons that the power cable is removed from the electrical supply before cleaning the casing with a damp cloth.

Do not use solvents or abrasives for cleaning. This could damage the surface or text.

IF AT FIRST YOU DON'T SUCCEED....

Some suspected defects of the equipment are in fact very often found to have arisen from faulty operation. Sometimes a malfunctioning item of ancillary equipment connected to the CD2 unit is to blame. Before you consult your dealer or contact us, we would like you to check the items on the following list to see whether you can correct the malfunction yourself.

Display not lit although the CD2 unit is switched on.

Press the **DISPLAY OFF** button (13) ; the display will switch on.

CD tray closes but the contents of the CD are not displayed and the player cannot be operated.

Either a soiled/defective CD has been inserted or the CD has been placed in the tray upside down (CD label facing downwards instead of being visible). Press button **OPEN** (9), the tray will open and the CD can be removed. Incorrectly located CDs should be laid the right way up. Soiled CDs should be cleaned before replacing in the tray.

No musical playback although the display shows "PLAY" or "PPLAY"

- a) Check whether **PAUSE** is activated and when necessary deactivate by pressing the **PAUSE** buttons (11, 30).
- b) Check the connection of the CD2 unit to the amplifier or D/A converter (plugs loose, cables kinked etc).

Remote control does not work:

- a) The remote control battery is empty.
- b) There is no line of sight between the remote control and the CD2 unit (infra-red light provides the communication signal).

Indefinable display indication and/or the unit does not react to operation of the buttons

Damage has been caused to the processor by an electrical discharge (for example: sparking when a person touches the unit after previously acquiring a static charge through contact with synthetic carpets or clothes) or a mains supply failure. Switch off the unit at the mains switch (2) and after 10 seconds switch it on again. If these actions do not successfully effect a recovery disconnect the CD2 from the mains supply for approximately 10 seconds by withdrawing the mains plug.

Technical information of the Evolution CD2

Digital

Output impedance Cinch	75 Ohm
Output impedance BNC	75 Ohm
Output impedance XLR	110 Ohm
Output voltage	conformity to IEC 908

Optical output	TOSLINK
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Analogue

Output impedance Cinch	75 Ohm
Output impedance XLR	75 Ohm
Frequency response	< 20 Hz - 20 kHz
Rise time	< 0.5 μ s
Signal-to-noise ratio	110 dB / 114 dB(A) (reference digital - null)

Power supply	230 V / 50 Hz / 15 VA (Stand by < 0.5 VA)
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Measurements (LBH)	435 x 330 x 115mm
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Weight	7 - 9 kg depending on model
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We reserve the right to amend technical details and fittings.

Valid 10/99

