

ERC-2

EMOTIVA[®]
AUDIO CORPORATION

ERC-2

Differential Reference[™] CD PLAYER

OPERATION MANUAL

TABLE OF CONTENTS

Thank You for your ERC-2 Purchase	5
Limited Warranty	6
Service Assistance For the ERC-2	6
Emotiva Disclosure	7
FCC Compliance	7
Safety Precautions	8
A Note for the Cable Television (CATV) Installer	9
Unpacking the ERC-2	9
Inventory	9
TECHNICAL SPECIFICATIONS	10
Key Features of Your New ERC-2 Audiophile CD Player	11
Disc Handling	12
Discs usable with the ERC-2	12
Holding discs	12
Loading discs	12
Cautions on loading discs	12
Cautions on handling discs	12
Disc Storage	12
FRONT PANEL LAYOUT	13
REAR PANEL LAYOUT	14
REMOTE CONTROL	15, 16
Changing the Remote Control Batteries	17
OPERATING INSTRUCTIONS	18
Loading and ejecting discs	18
Normal disc play	18
Locating a specific track	18
Locating a particular point in a track	19
Repeating discs and tracks	19

TROUBLESHOOTING	20
The disc does not rotate	20
The disc is playing but there is no sound	20
The disc stops, noise is heard or the sound drops out	20
A CD-R / CD-RW disc cannot be played	20
The remote control does not operate	20
A specific CD cannot be played	20
Digital signal has no output	20
IMPORTANT USER INFORMATION	21

THANK YOU FOR YOUR ERC-2 PURCHASE

Dear Music Enthusiast,

Thank you for purchasing the Emotiva ERC-2 CD Player. We sincerely believe that it offers you outstanding performance and value. Emotiva products are engineered and produced with the highest quality materials and incorporate the latest technology. We think you will find the Emotiva ERC-2 meets or exceeds your expectations.

The ERC-2 is a high quality audiophile grade CD player. It has been designed for maximum performance, ease of use and installation flexibility. The ERC-2 reproduces music the way it was created; dynamic, crystal clear, open and engaging. The subtle pull of a bow, the crunch of a power chord, the gentle nuances of a vocal performance; it's all there, waiting to be experienced like never before.

The ERC-2 features a 24 bit digital filter with 384 x oversampling. This maintains the ultimate transparency and openness and minimizes output phase shift.

LIMITED WARRANTY

The Emotiva ERC-2 CD Player has been created to perform flawlessly for many years. As a result of this quality and craftsmanship, Emotiva offers the following warranty to owners of the ERC-2.

Emotiva Audio warrants the ERC-2 to be free from defects in materials and workmanship for a period of **five years** from the original date of purchase. The following items are excluded from, or will void this warranty coverage:

- 1) *Damage to the ERC-2 caused during shipment and handling. (If you receive an item that you believe to have been damaged during shipment, please contact Emotiva immediately. Phone: 877-EMO-Tech (877-366-8324) / Email: support@emotiva.com*
- 2) *Damage to the ERC-2 caused by accident, misuse or abusive operation contrary to the instructions specified within this manual.*
- 3) *ERC-2 units that have had the serial numbers defaced, modified, or removed.*
- 4) *Damage to the ERC-2 resulting from a modification of, or attempted repair by any person or company not authorized by Emotiva.*
- 5) *Any ERC-2 unit purchased from a non-authorized dealer.*
- 6) *Emotiva does not assume liability for loss of use or damage to associated or connected equipment.*

Service Assistance for the ERC-2

- 1) Please note that BEFORE sending your ERC-2 in for repair you MUST call Emotiva and obtain a return merchandise authorization (RMA) number. Before contacting Emotiva to begin the RMA process, please have as detailed a description of the problem(s) you are experiencing and the conditions under which the problem(s) occur. Additionally, please be sure to check the troubleshooting guide in this manual to rule out the possibility of something simple you may have overlooked. Many instances of perceived failure are simple operational and setup mistakes and Emotiva is happy to assist you however possible. Please call 877-EMO-Tech (877-366-8324) / Email: support@emotiva.com

Once you have obtained the RMA number, you must print this clearly on the outside of the box so it will be possible to determine from whom the ERC-2 came once it arrives. Parcels arriving without an RMA numbers will be refused and returned freight collect.

Please send your repairs with RMA to:

Emotiva Audio Corp.

Attn: Repair Department

135 SE Parkway Court

Franklin, TN 37064

RMA – (Put your RMA number in this spot.)

877-EMO-Tech (877-366-8324) / Email: customerservice@emotiva.com

Emotiva Disclosure

Copyright 2011 Emotiva

All Rights Reserved. Emotiva reserves the right to make improvements to its products at any time. Therefore, the specifications of the product and the specific details of this manual are subject to change at any time.

Emotiva and the Emotiva "E" are registered trademarks of Emotiva Audio Corporation

NOTE: The ERC-2 is a Class 1 Laser Product

FCC Compliance:

This device complies with part 15 of FCC Rules. Operation is subject of the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

SAFETY PRECAUTIONS

Read this User's Guide thoroughly before attempting to install and configure the ERC-2 CD Player. All the safety and operation instructions should be read before any operation of the component(s) begin. After successful installation and configuration of the ERC-2 CD Player, be sure to retain this manual in a safe place for any future reference needs.

All warnings on the ERC-2 CD Player and in these operating instructions should be followed. Safety is a key component to a long lasting and trouble free installation. The vast majority of the subsequent safety precautions involve simple common sense. If you are not comfortable with the installation of audio/video entertainment equipment, it will be to your benefit to seek the services of a qualified installation professional.

NEVER use the ERC-2 CD Player near water such as a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool etc. There is a risk of electric shock to your body and permanent damage to the equipment. Electric shock may result in permanent bodily injury or death.

The ERC-2 CD Player should be situated so that its location or installation position does not interfere with proper ventilation. The ERC-2 CD Player should not be situated on a bed, sofa, rug or similar surface that may block any ventilation openings; or placed in a built-in installation such as a bookcase, cabinet, or closed equipment rack that may impeded the flow of air through ventilation openings. If installed in a closed equipment rack for custom installations, be sure to add forced air ventilation so that it has adequate air circulation. The ERC-2 CD Player should be situated away from heat sources such as radiators, or any other devices which produce heat.

The ERC-2 CD Player should be connected to a power supply only of the type described in this User's Guide and what is labeled on the ERC-2 CD Player component. Power supply cords should be routed so that they are not in high foot traffic areas or pinched by item placed upon or against them, paying particular attention to cords at the wall plugs, convenience receptacles, and the point where they connect into the ERC-2 CD Player. The power cord for the ERC-2 CD Player should be unplugged from the outlet when unused for a long period of time. Never spray liquids directly into the component's vent openings. Care should be taken so that small objects do not fall into the inside of the ERC-2 CD Player.

The following situations require that your ERC-2 CD Player be serviced only by qualified service personnel;

- 1. The power-supply cord or the plug has been damaged; or*
- 2. Objects have fallen, or liquid has spilled into the component; or*
- 3. The ERC-2 CD Player has been exposed to rain; or*
- 4. The ERC-2 CD Player does not appear to operate normally or exhibits a marked change in performance; or*
- 5. The ERC-2 CD Player has been dropped, or its enclosure or chassis is damaged.*

A Note for the Cable Television (CATV) Installer

This reminder is to call the CATV system installer's attention to Article 82040 of the NEC that provides guidelines for proper grounding and in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

UNPACKING THE ERC-2

The Emotiva ERC-2 CD Player should reach you in flawless condition. If you notice any shipping damage or other issues upon unpacking the unit, please contact Emotiva immediately.

INVENTORY

Included with your ERC-2 CD Player should be a power cord, remote control, and batteries. Please take a moment to make sure all the items are there in the packaging.

Gently lift out the unit and remove all the packaging material and accessories. The ERC-2 is a delicate instrument so please unpack it carefully to avoid unnecessary damage to the CD player. It is important to save all the packing materials and the boxes in case your ERC-2 ever needs to be moved or shipped back to the factory for service.

TECHNICAL SPECIFICATIONS

- Nominal output voltage: 2V rms
- Channel separation: $\geq 95\text{dB}$ - ref. 1kHz
- Frequency response: 20Hz~20kHz (+/- 0.1dB)
- S/N: $\geq 100\text{dB}$ (A weighted)
- THD: $\leq 0.01\%$ 0dB 1KHz)
- Playback formats: Redbook CD, HDCD, MP3
- Digital Output Filter: 24-Bit, 384 times oversampling (Analog Devices 1955)
- Sampling Frequency: 44.1 kHz
- Analog output filter frequency: 80 kHz (-3dB)
- Amplitude output linearity: 0.2dB
- Phase linearity: 30°
- Power consumption: $\leq 25\text{W}$
- Output connection types: EAS/EBU, digital coaxial, digital optical Toslink, unbalanced RCA, balanced XLR
- Weight: 17.5 lbs. (unboxed)
- Width: 17 inches
- Depth: 14 inches (including RCA jack extension)
- Height: 3.75 inches (faceplate only) – 4.25 inches including feet
- Feet are recessed 2.25 inches from face of unit, and .5 inches from back of unit

****Please note: All outputs (digital and analog) on the ERC-2 are active at all times.***

ADDITIONAL FEATURES

Four (4) independent power supplies drive each section of the unit independently. This prevents interactions and noise. The separate power supplies drive:

1. CD mechanism
2. Digital electronics
3. Analog electronics
4. VFD Display

The CD drive mechanism and the digital electronics are encased in a steel substructure that provides 100% shielding from the audio stages. No noise from the mechanism or digital section can get into the audio. The ERC-2 features a new, state of the art magnetic loading mechanism, and uses magnetic clamps, which eliminate any risk of damage when used properly.

The audio board itself is fully isolated from the power supply and digital sections and offers a fully discrete output stage, capable of producing up to 7V rms of output.

- Slot-load system with halo lighting.
- Lighting has two selectable functions:
 - Default setting: All lights stay brightly lit constantly.
 - 'Dim' setting: Dims the display light, and turns off the halo light and all the front panel buttons except the On/Standby button. Halo lighting will occur when CDs are ejected. Activate this mode by pressing the 'Dim' button on the ERC-2 remote.
- 12 volt trigger for automatic turn on with other sources
- Milled aluminum remote control

DISC HANDLING

Use only discs with regular shapes. If an irregular disc (a disc with a special shape) is used the ERC-2 may be damaged.

Discs usable with the ERC-2

CD Audio (CD-DA), CD-R, CD-RW, HDCD

Holding discs

Avoid touching the surface of a disc where recording is performed.

Loading discs

Hold the CD by the edges loosely and gently slide the CD into the slot-loading system. ***Wait for the ERC-2 to take the disc, there will be a short delay while the player does this.*** Release the disc into the ERC-2.

Cautions on loading discs

- ***Do not force*** the disc into the slot-loading system or it may be damaged.
- Make sure the CD label is facing up. Do not put the CD into the player upside down or the disc may get stuck and the ERC-2 may be damaged.

Cautions on handling discs

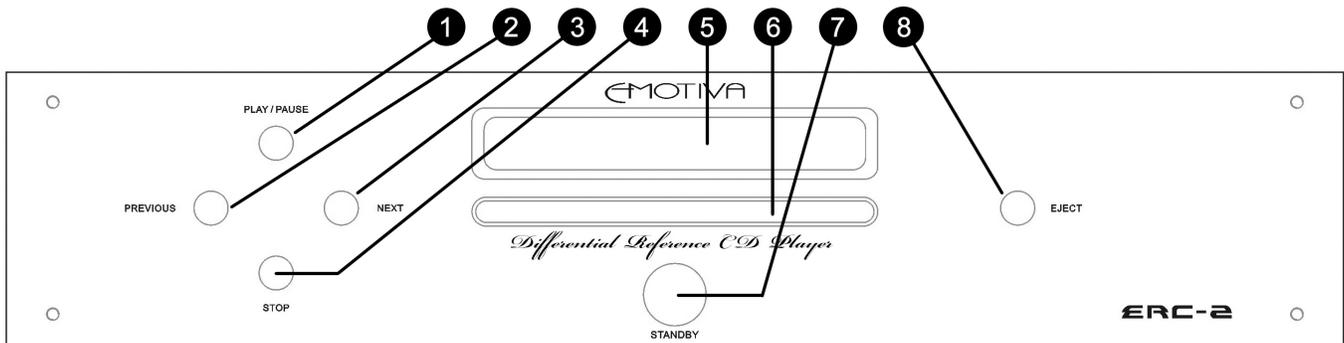
- Do not write on the printed side with a ball-point pen or pencil
- Do not use record cleaning sprays or antistatic. Also, do not use volatile chemicals, such as benzene or thinner.
- Do not apply labels or stickers to discs. (Do not use discs fixed with exposed tape adhesive or leftover peeled off stickers.
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.
- Do not load warped or cracked discs

Disc Storage

Be careful not to damage the disc as the data is highly susceptible to the environment

- Do not put in direct sunlight.
- Keep in a cool ventilated area.
- Store vertically
- Keep in a clean protective case.
- If you move the ERC-2 from a cold place to a warm place, condensation may collect on the inside parts and cause abnormal disc play. If this happens, wait for at least two hours before connecting the ERC-2 to a power outlet.

FRONT PANEL LAYOUT



1. PLAY/PAUSE

This is used to play and pause the disc.

2. PREVIOUS

This is used to jump to the start of the current track or to jump to the start of the previous track.

3. NEXT

This is used to advance to the start of the next track.

4. STOP

This is used to stop the disc.

5. DISPLAY

This contains all information about the disc currently playing.

6. SLOT-LOAD SYSTEM

This is where the disc is loaded. (Blue Halo lit)

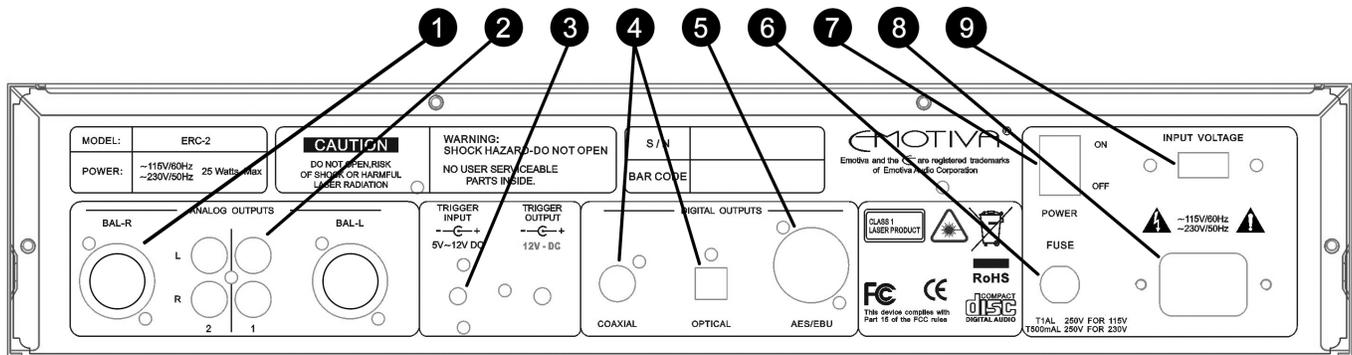
7. STANDBY

This powers the unit to on from standby and from standby to on (also performed with the remote control). The button will glow amber when in standby and blue when on.

8. EJECT

This ejects the disc from the slot-load system.

REAR PANEL LAYOUT



1. BALANCED OUTPUTS (1 set)

These are used to connect the ERC-2 to an input device (pre/pro, receiver) with balanced (XLR) type cables.

2. ANALOG OUTPUTS (2 sets)

These are used to connect the ERC-2 to an input device, (DAC, pre/pro, receiver) with RCA type cables.

3. TRIGGER INPUT

When connected to a pre/pro or receiver with a trigger output, the ERC-2 will power up and power down in synchronization with the connected device.

4. DIGITAL OUTPUTS

These are used to connect the ERC-2 to an input device (DAC, pre/pro, pre-amp, receiver) via coaxial and/or optical.

SPDIF Coaxial Digital - To obtain best results, use a high quality 75 ohm digital RCA interconnect cable (not one designed for normal audio use).

Toslink Optical Digital - Use a high quality Toslink fiber optic interconnect cable specifically designed for audio use.

5. PROFESSIONAL AES/EBU DIGITAL OUTPUT

Fully balanced and immune to noise pickup from nearby audio cables, AC power, wireless phones, Wi-Fi, etc. AES/EBU connection is capable of distances up to 1000 feet with no loss of data integrity.

6. FUSE

7. MAIN POWER SWITCH

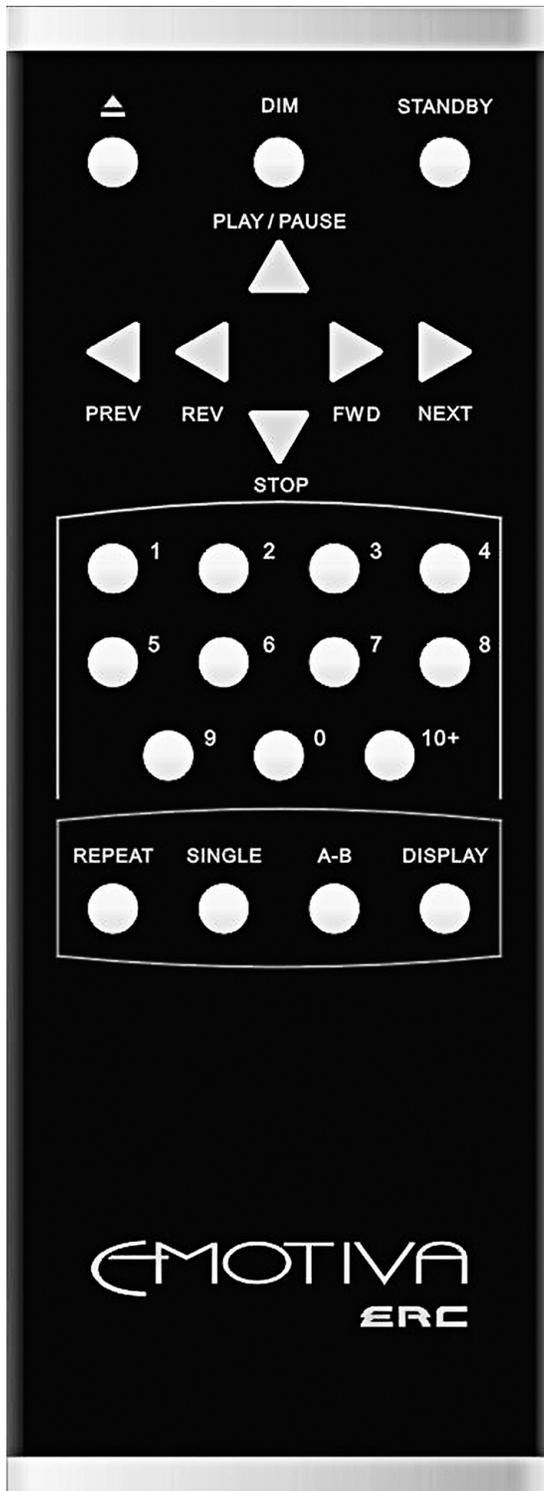
This rocker switch provides the master power for the ERC-2. After it is in the ON position, the ERC-2 can be turned on manually from the front panel switch, remote control or automatically with the trigger input via a 3.5mm input jack.

8. POWER RECEPTACLE

This is a standard IEC 3 prong power receptacle.

9. INPUT VOLTAGE

REMOTE CONTROL



1. EJECT

Ejects the disc from the unit.

2. DIM

This is used to dim the display light. It also turns off the halo light and the lights for all the front panel buttons except the On/Standby button.

3. STANDBY

Switches the unit between On and Standby mode.

4. PLAY/PAUSE

This is used to Play and Pause the disc.

5. PREV

This is used to jump to the start of the current track or to jump to the start of the previous track.

6. REV

This is used to search backward and has three different speeds. Press once and it moves backward, press again faster, press a third time faster. You don't have to hold the button down. Hit PLAY or REV again to resume normal play.

7. FWD

This is used to search forward and has three different speeds. Press once and it moves forward, press again faster, press a third time faster. You don't have to hold the button down. Hit PLAY or FWD again to resume normal play.

8. NEXT

This is used to advance to the start of the next track.

9. NUMERIC BUTTONS (1 to 10+)

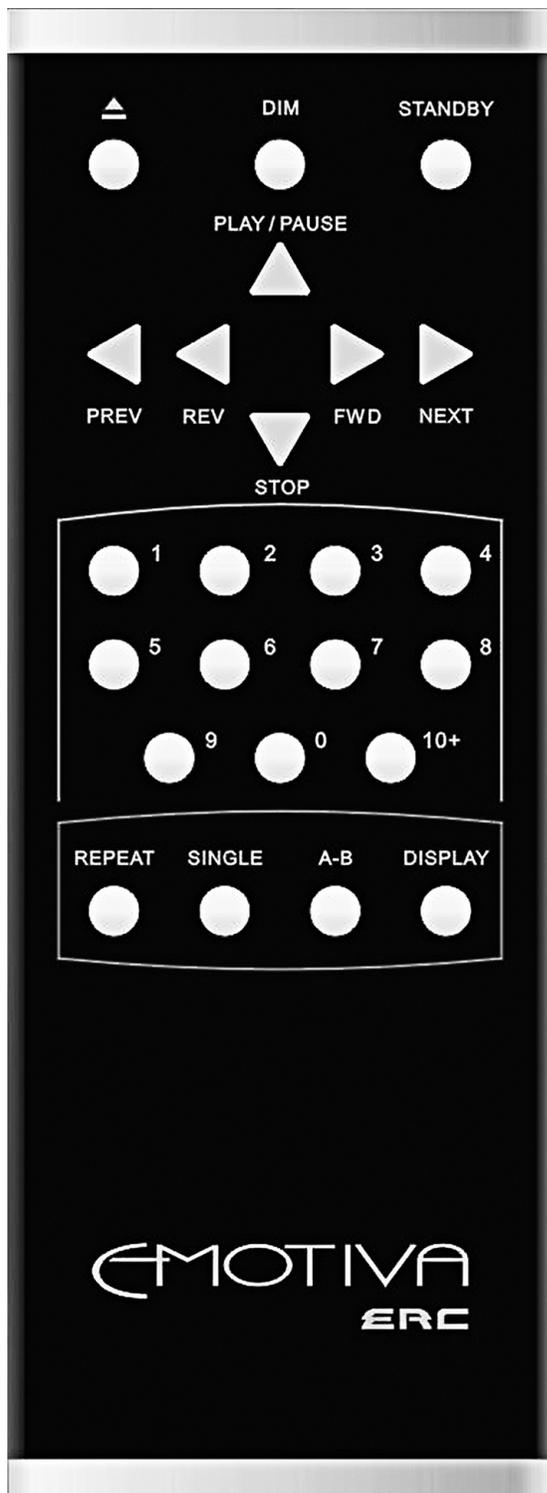
These are used to specify a desired track. Press the number and the corresponding track will be played from the start of the track and play the remainder of the CD.

10. REPEAT

This is used to repeat one track or all of the tracks on a disk. Press the REPEAT button once and the display reads REPEAT ONE, press the REPEAT button again and the display reads REPEAT ALL, press the REPEAT button again the display reads REPEAT OFF and the ERC-2 returns to normal play.

11. A-B

This allows you to loop a certain section of a track, a full track, multiple tracks etc. Press once to start the loop, press again where you want the loop to end. The player will now play the section between the two loop points. Press the A-B button again and the ERC-2 returns to normal play.



12. DISPLAY

Pressing the display button changes the information on the screen.

- When the ERC-2 first starts playing a disc the display will show the time elapsed on the current track.
- Press the DISPLAY button while the disc is playing and the display will change to total time left on the current track.
- Press the DISPLAY button again and the display will change total time elapsed on current disc.
- Press the DISPLAY button again and the display will change to total remaining time on the disc currently playing.
- Press the DISPLAY button again and the display will revert to the default of total time elapsed on current track.

CHANGING THE REMOTE CONTROL BATTERIES

Emotiva recommends using high quality AAA batteries in the ERC-2 remote control.

To change the remote control batteries you will need a flat tipped Phillips #2 screwdriver! DO NOT attempt to use a different size bit or damage will occur!

Remove the six (6) Philips head screws on the back of the remote. Make sure you use the proper size screwdriver so you do not damage the screw heads. This should be performed on a stable surface. Take care not to lose any of the screws. If you lose any of the screws bring one of the remaining screws to your local hardware store, they should be able to find you an adequate replacement.

Turn the screw counter clockwise gently so not to damage the screw heads. When all six (6) screws are removed, remove the back panel.

Remove the old batteries and discard according to battery maker's instructions. Insert new batteries making sure they are installed correctly. Use diagrams in the battery slots for reference.

Place the back panel back on the remote and reinstall the six (6) screws, turning clockwise gently until a snug fit is achieved. Do not over tighten the screws as you may damage the screw heads and/or screw holes in the back of the remote.

Your remote is now ready to use.

OPERATING INSTRUCTIONS

LOADING & EJECTING DISCS

1. Press the Standby/On button, make sure unit is on.
2. The display will read EMOTIVA for a few seconds at power up. LOADING will then appear on the screen. The player will then say READY. *Insert disc into the slot-loader gently. Do not push hard. Allow the slot-loader to take the disc from your hand; there will be a short delay.* (If the ERC-2 does not say READY at power up, a disc is already in the player. The disc will start playing automatically. Press STOP and then EJECT to eject the disc.

Note:

- Do not put anything except a Compact Disc into the slot loader; foreign objects may damage the ERC-2.
- *Do not force discs into the slot-loader.*
- If the Compact disc is too dirty or scratched the disc may not play.
- Never load more than one disc into the player at one time.

NORMAL DISC PLAY

Switch on your pre/pro and amplifier or receiver and select the input the ERC-2 is connected to. Make sure your volume control is turned all the way down.

1. Press the Standby/On switch
2. Insert disc into the slot-loader (*Do not force the disc. Allow the slot-loader to take the disc from your hand.*)
3. The ERC-2 will read the disc and begin to play automatically.
4. To stop the disc at any point press the Stop button. Pressing the Play/Pause button while the disc is playing will pause the disc. When the disc is paused the display will read PAUSE. Play can be resumed by pressing the Play/Pause button again.

LOCATING A SPECIFIC TRACK

1. Make sure that a disc is in the player
2. Pressing the Next Button on either the ERC-2 or the remote control will forward the CD by one track. Repeat as necessary to find the desired track.
3. Press Play and the disc will play to the end of the disc.
4. Pressing the Previous Button on either the ERC-2 or the remote control will access the previous track.
5. Press a number on the remote control and the corresponding track will be played.

LOCATING A PARTICULAR POINT IN A TRACK

1. Make sure that the disc is playing the desired track.
2. Press the Left REV Button on the remote control, the CD will then rewind within the track. Press again and the disc will rewind faster. Press a third time and the disc rewinds faster. Press a fourth time and the disc will resume normal play or press Play to resume normal speed. The button does not need to be held down during this function.
3. Press Right FWD Button on the remote control, the CD will then fast forward within the track. Press again and the disc will fast forward faster. Press a third time and the disc fast forwards faster. Press a fourth time and the disc will return to normal play or press Play to resume normal speed. The button does not need to be held down during this function.

REPEATING DISCS AND TRACKS

1. Make sure that the disc is playing.
2. Press the Repeat Button on the remote control. REPEAT ONE will appear on the display. This will cause the current track to repeat.
3. Press the Repeat Button again and REPEAT ALL will appear on the display. This will cause the disc currently in the ERC-2 to repeat.
4. Press the Repeat Button a third time and REPEAT OFF will appear on the display and the ERC-2 returns to normal play back functions.

TROUBLESHOOTING

- **The disc does not rotate**
 1. Is the power cable plugged in?
 2. Is the power switch on?
 3. Is the disc placed upside down?
 4. Is the disc dirty?
 5. Is the disc scratched?
 6. Is the disc warped?

- **The disc is playing but there is no sound**
 1. Are the receiver or pre/pro and amplifier and speakers connected correctly?
 2. Is the receiver or pre/pro and amplifier turned on?
 3. Is the receiver or pre/pro function set to the correct input?
 4. Is the volume control set at the minimum level?

- **The disc stops, noise is heard or the sound drops out**
 1. Is the disc dirty?
 2. Is the disc scratched?
 3. Is the disc warped?

*In the case of a CD-R or CD-RW disc this may occur when the conditions under which the disc in question was recorded were substandard or if the quality of the disc itself is poor.

*This may also occur if the disc in question has the CDDA format mixed with other data.

- **A CD-R / CD-RW disc cannot be played**
 1. Is the disc placed upside down?
 2. Does the disc in question contain the properly written TOC (Table of Contents)?
 3. Is the disc in question recorded in an audio (CD-DA) format?

- **The remote control does not operate**
 1. Is the remote control sensor blocked?
 2. Is the remote control sensor pointed at the remote sensor on the front of the unit?
 3. Are there batteries in the remote control?
 4. Have the batteries in the remote control expired?
 5. Is there strong light (from a window etc.) hitting the ERC-2's remote sensor?

- **A specific CD cannot be played**
 1. A CD with copy controls cannot be played on the ERC-2. These are special discs that do not comply with the current CD standards. When normal CDs can be played and the problem only occurs with discs with copy controls there is not a problem with the ERC-2.

- **Digital signal has no output**
 1. Are the coaxial and/or optical cables connected correctly?
 2. Is the receiver or pre/pro set to the correct input?
 3. Is the input set up to receive a digital signal?

IMPORTANT USER INFORMATION

CAUTION – The use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION – No user serviceable parts inside unit. The unit is not to be open or modified by the customer. **Exposure to harmful laser radiation may result.** No service is allowed by the customer. The unit must be returned to the factory for any service or repair.

Emotiva Audio Corporation
135 Southeast Parkway Court
Franklin, TN 37064

This product complies with FDA Class 1 Laser Certification during all modes of operation.

There is no scheduled maintenance necessary on this product.

Internal Laser Radiation Emission Parameters:

Wavelength 790nm (+-15nm)
CW power for classification <290uW
Wavelength 650nm (+-10nm)
CW power for classification <311uW
No laser radiation above Class 1 levels accessible to user.

Label Data:

“Class 1 Laser Product” (explanatory label)
location: Rear Panel

Manufacturer’s ID & Certification Statement
location: Bottom

EMOTIVA AUDIO CORPORATION
135 SE Parkway Court
Franklin TN 37064
1-877-366-8324

Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

EN/IEC 60825-1:2007



CLASS 1 LASER PRODUCT

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