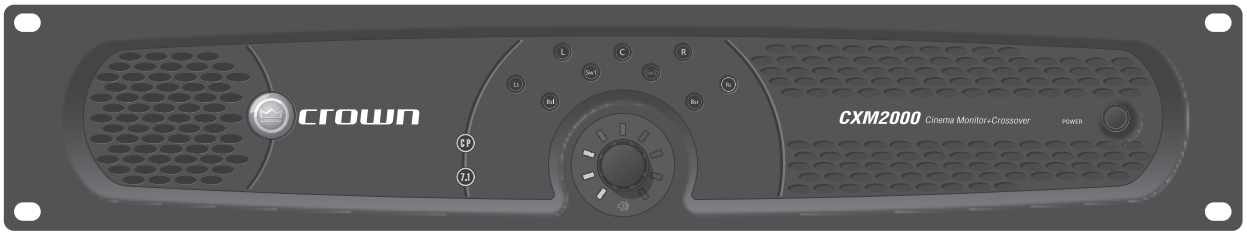
CXM2000 Cinema Monitor and Crossover System

CXM2000 影院扬声器优化/监听系统

Operation Manual
操作手册



Obtaining Other Language Versions: To obtain information in another language about the use of this product, please contact your local Crown Distributor. If you need assistance locating your local distributor, please contact Crown at +1 (574) 294-8000.

This manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during installation, operation or maintenance.

The information provided in this manual was deemed accurate as of the publication date. However, updates to this information may have occurred. To obtain the latest version of this manual, please visit the Crown website at www.crownaudio.com.

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Some models may be exported under the name Amcron®.

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本手册未提供有关产品设计、生产和变更的所有详细信息，也未列举出在安装、运行或维护本产品时可能出现的所有情况。

本手册里提供的信息在出版时为准确无误。然而，我们仍可能在出版本手册后更新相应内容。如果您需要获取本手册的最新版本，请登录Crown的官方网站www.crownaudio.com。

商标声明：本手册中出现的Crown、Crown Audio和Amcron为Harman International的注册商标。其它商标为相应公司的注册商标。

有些型号的产品是以Amcron®的商标出口。

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Important Safety Instructions
重要的安全说明

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.



12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Use the mains plug to disconnect the apparatus from the mains.
16. WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.



17. DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, ARE PLACED ON THE EQUIPMENT.
18. THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

WATCH FOR THESE SYMBOLS:

注意这些符号：



The lightning bolt triangle is used to alert the user to the risk of electric shock.

闪电三角形符号用来提示用户注意电击的危险。



The exclamation point triangle is used to alert the user to important operating or maintenance instructions.

感叹号三角形符号用来提示用户重要的操作或者维护说明。

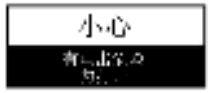
1. 请阅读这些说明。
2. 请妥善保管这些说明。
3. 请留意所有警告。
4. 请遵守所有这些说明。
5. 请勿在靠近水的地方使用本产品。
6. 清理时只能使用干布。
7. 请严格按照制造商提供的操作说明进行安装。
8. 不要将本产品直接安装在任何热源，比如散热器、电热器、火炉或者其他产生热量的设备（包括功放）上。
9. 不要破坏具有安全功效的极性插头或者接地式插头。极性插头有两个插脚，一个宽，一个窄。接地式插头有两个插脚和一个接地插脚，其中宽插片或者接地插脚是用来保障您的安全的。如果所提供的插头不适合您的插座，请咨询联系电工更换适合的插座。
10. 保护电源线。避免电源线被踩踏或者被捻搓。特别注意保护在插头、便捷插座和电源线接出设备处的电源线。
11. 仅使用制造商指定的附件和配件。
12. 仅使用制造商指定的或者随本产品一同出售的载车、支架、三角架、托架或者工作台。在使用推车运输设备时，特别注意推车及设备，避免其翻倒造成伤害。
13. 在有雷电时或者长时间不使用本产品时，请拔掉本产品的插头。
14. 所有维修服务必须由有资格的维修人员提供。当设备受到任何形式的损坏时，比如电源线或者插头被损坏，液体或者异物掉入设备，遭受雨淋或受潮，不能正常工作，以及被摔碰等情况，都需要维修。
15. 应采用断开主电源线与市电插座连接的方法来断开产品与电源的连接。
16. 警告：为降低失火或者电击的风险，不要让设备遭受雨淋或者受潮。
17. 不要将产品放置在容易遭受滴漏或者喷洒的地方。例如，不要将装有液体的物品，比如花瓶等放到设备上。
18. 请确保电源插头可随时插拔使用。



WARNING: THE APPARATUS WITH CLASS I CONSTRUCTION SHALL BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

警告：I类结构的设备应当连接到带保护接地连接的电网电源输出插座上。









TO PREVENT ELECTRIC SHOCK DO NOT REMOVE TOP OR BOTTOM COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

为了避免电击，请不要拆卸设备。设备内部无用户可以自行维护的部件。请向有资格的服务人员咨询。



TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE. THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

要完全断开此设备与交流电主线的连接，请把电源线插头从交流电插座中拔出。需要连接电源时，可再次将电源线插头插入交流电插座。

FCC COMPLIANCE NOTICE

This device complies with part 15 of the FCC rules. Operation is subject to 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.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

DECLARATION of CONFORMITY

ISSUED BY: Harman International
1718 W. Mishawaka Road
Elkhart, Indiana 46517 U.S.A.

European Representative's Name and Address:
David Budge
10 Harvest Close
Yateley GU46 6YS
United Kingdom

Product: Cinema Monitor and Crossover System
Model Names: CXM2000

Conforms to the following Product Specifications:

EMC Standards:

EN55103-1: 2009 Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 1: Emissions

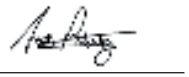
EN55103-2: 2009 Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 2: Immunity

Safety Standard:

IEC 60065: 2001 7th Ed. + A1: 2005 + A2:2010 Safety Requirements - Audio Video and Similar Electronic Apparatus

EN 60065: 2002 + A1:2006 + A11:2008 + A2:2010 + A12:2011 Safety Requirements - Audio Video and Similar Electronic Apparatus

I certify that the product identified above conforms to the requirements of the EMC Council Directive 89/336/EEC as amended by 92/31/EEC, and the Low Voltage Directive 73/23/EES as amended by 93/68/EEC.

Signed 

Scott Potosky

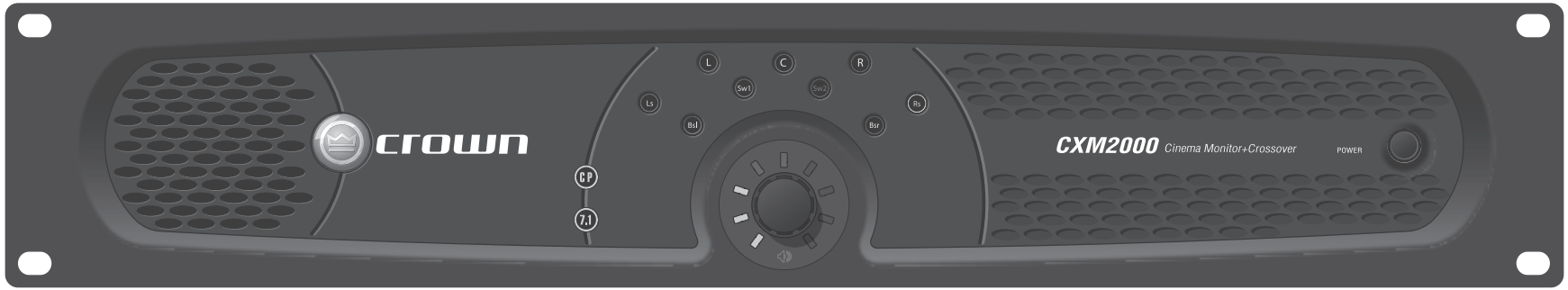
Title: Director of Engineering

Table of Contents

Important Safety Instructions 2
DECLARATION of CONFORMITY 3
1 Welcome 5
1.1 How to Use This Manual 5
1.2 Features 5
2 Unpacking the CXM2000 6
3 Front/Rear Panel 7
4 Setup 9
4.1 Material Required (not supplied) 9
4.2 Mounting the CXM2000 9
4.3 Ensuring Cooling 9
4.4 Wiring the System 10
4.4.1 Setting the DIP Switches 10
4.4.2 Connecting to Cinema Processor 10
4.4.3 Connecting the CXM2000 output to amplifier 11
4.4.4 Connecting amplifier to speakers 12
4.4.5 Connecting the CXM2000 to AC power supply 12
5 Operation 13
5.1 Precautions 13
5.2 Turning on the CXM2000 13
5.3 Optimizing Speaker Performance 13
5.4 Switching Audio Source Format 13
5.5 Monitoring Audio Signals 14
5.6 Implementing Fault Detection 15
5.6.1 Auto Fault Detection 16
5.6.2 Manual Fault Detection 16
5.6.3 Real-time Fault Detection 16
6 Specifications 17
7 Appendix 18
Appendix I. Pin Definition 18
Appendix II. 8-way DIP Switch Configuration 19
Appendix III. DSP Preset Information 19
Appendix IV. Monitor Volume Level 19
Appendix V. Control ASCII Protocol 20
Appendix VI. Communication Settings 20
8 Service 21
9 Warranty 23

目录

重要的安全说明 2
1 欢迎 5
1.1 如何使用本手册 5
1.2 特点 5
2 拆箱 6
3 前/后面板 7
4 安装 9
4.1 需求配件（未提供） 9
4.2 安装CXM2000 9
4.3 保证正常散热 9
4.4 连接系统 10
4.4.1 设置DIP开关 10
4.4.2 连接至处理器 10
4.4.3 连接至功放 11
4.4.4 连接功放至扬声器 12
4.4.5 连接至电源 12
5 操作 13
5.1 预防措施 13
5.2 开启设备 13
5.3 使用扬声器优化功能 13
5.4 切换电影输入格式 13
5.5 使用音频监听功能 14
5.6 使用故障检测功能 15
5.6.1 自动故障检测 16
5.6.2 手动故障检测 16
5.6.3 实时故障检测 16
6 规格 17
7 附录 18
附录一、引脚定义 18
附录二、8路DIP开关设置 19
附录三、DSP预设信息 19
附录四、监听音量等级 19
附录五、控制ASCII协议 20
附录六、通讯设置 20
8 服务 22
9 保修 25



1 Welcome

Thank you for purchasing the Crown® CXM2000 Cinema Monitor and Crossover System. With the CXM2000, you can enjoy the wonderful sound from the specified JBL cinema speakers. The CXM2000 allows you to monitor either the processor input signals or the amplifier output signals without leaving the control room. All controls necessary for daily operation of the CXM2000 are easily accessible on the front panel.

1.1 How to Use This Manual

This manual provides you with the necessary information to safely and correctly setup and operate your CXM2000. It does not cover every aspect of installation, setup or operation that might occur under every condition. For additional information, please consult Crown Technical Support, your system installer or retailer.

We strongly recommend you read all instructions, warnings and cautions in this manual. For your protection, please send in your warranty registration card today. Save your bill of sale — it's your official proof of purchase.

1.2 Features

- Built-in speaker monitors the processor input and amplifiers output signals[1].
- Onboard JBL cinema speaker parameters include crossover, EQ filters, delay, and more to enhance speaker's performance.
- Fault detection indicates faults on the front panel and sends alarm signals to Theater Management System (TMS)[2].
- Total solution designed to work with JBL passive and bi-amplified cinema speakers in systems using Crown DSi and XLC amplifiers.
- Lit buttons offer easy operation in dark rooms.
- HD-25 connectors and HD-15 connectors for quick and hassle-free connectivity.
- Three-Year, No-Fault, Fully Transferable Warranty completely protects your investment and guarantees its specifications.

[1] Monitor only works in systems using Crown DSi series or XLC series amplifiers. Please refer to "5.5 Monitoring Audio Signals" on page 14. Please consult the local dealer for the information of Crown XLC series amplifiers.

[2] Fault detection only works in systems using Crown XLC amplifiers. Please refer to "5.6 Implementing Fault Detection" on page 15.

1 欢迎

欢迎您购买本产品，Crown® CXM2000是一台影院扬声器优化/监听系统设备，使用于影院系统中，只需要正确接上对应的JBL影院扬声器，即可获得优化后美妙动听的声音。在CXM2000的帮助下，控制员无需离开控制室，也可以监听处理器或功放的声道播放状况。CXM2000的所有日常操作，都可以在前面板完成，简单且方便。

1.1 如何使用本手册

本手册为您安全而正确地安装和使用设备提供必要的信息。但是，它不能涵盖安装、设置或使用该设备时可能出现的所有情况。如果您需了解更多信息，请向Crown 的技术支持部门、您的系统安装人员或零售商咨询。

我们强烈建议您仔细阅读本手册中的所有说明、警告和注意事项。另外，出于对您的保护，请立即递送您的保修注册卡。并且，保留您的购买票据，即您购买本设备的正式凭证。

1.2 特点

- 内置扬声器，可通过选择不同功能按键监听处理器输入或功放输出信号[1]；
- 内置JBL影院扬声器参数，包括分频、均衡器、延迟等，对扬声器提供声学优化；
- 故障检测功能，可于前面板显示故障声道，同时还可以发送预警信号至影院管理系统（TMS）[2]；
- 与Crown DSi系列和XLC系列功放以及JBL被动式和双功放驱动式影院扬声器搭配使用，为影院系统提供整体音频解决方案；
- 亮光按键使暗室操作更便利；
- 25针接口和15针接口提供简单整洁的布线；
- 三年免费保修，全面保护用户权益和产品规范。

[1] 监听功能需搭配Crown DSi系列或XLC系列功放使用，请参看第14页的“5.5 使用音频监听功能”。Crown XLC系列功放的相关情况，请咨询当地零售商。

[2] 故障检测功能需搭配Crown XLC系列功放使用，详情请参看第15页的“5.6 使用故障检测功能”。

2 Unpacking the CXM2000
2 拆箱



Please unpack and inspect your CXM2000 cinema monitor and crossover system for any damage that may have occurred during transit. If damage is found, notify the transportation company immediately. Only you can initiate a claim for shipping damage. Crown will be happy to help as needed. Save the shipping carton as evidence of damage for the shipper's inspection.

We also recommend that you save all packing materials so you will have them if you ever need to transport the unit. Never ship the unit without the factory pack.

Please check the supplied accessories in the package:

- One CXM2000 cinema monitor and crossover system;
- Only one power cord is supplied in the package. It is compatible to retailer's location. Please check the label on power cord with below list to ensure the correct supply. The list may not cover all regions. Please consult your retailer for any question.
  - China, 2.5m, CCC approved.
  - U.S.A. / Japan, 2.1m, BME type.
  - Australia, 2.1m, W/Australian plug.
  - United Kingdom, 2.1m, W/British plug.
  - Europe, 2.1m, W/European plug.
  - South Africa, 2m, SABS approved.
  - Russia, 2m, GOST approved.
  - Brazil, 2m, INMETRO approved.
- One operation manual (this manual);
- One product registration form (can be found on page 27 of this manual);
- One warranty card (can be found on page 29 of this manual).

请将包装箱打开并检查运输过程中设备是否出现损坏。如果发现损坏，请立即通知运输公司。只有您可以对运输损坏提出索赔。Crown 乐于按照所需提供帮助。保留运输硬纸箱，在托运人检查时，作为认定设备受损的证据。

另外，我们建议您保存所有的包装材料，留待将来运输设备时使用。不要在无工厂包装的情况下运输设备。

请检查包装箱内的附件是否齐全：

- 一台CXM2000影院扬声器优化/监听系统设备；
- 包装内只配备了一根电源线，根据相应的销售地配备不同的类型，请根据以下所列检查是否正确配备。以下所列并不一定覆盖全部地区，如有问题，请咨询当地零售商。
  - 中国，2.5米，CCC认证；
  - 美国/日本，2.1米，BME类型；
  - 澳大利亚，2.1米，澳规插头；
  - 英国，2.1米，英规插头；
  - 欧洲，2.1米，欧规插头；
  - 南非，2米，SABS认证；
  - 俄罗斯，2米，GOST认证；
  - 巴西，2米，INMETRO认证。
- 一本操作说明书（本说明书）；
- 一份产品注册表（本说明书28页）；
- 一张保修卡（本说明书30页）。

3 Front/Rear Panel

3 前/后面板

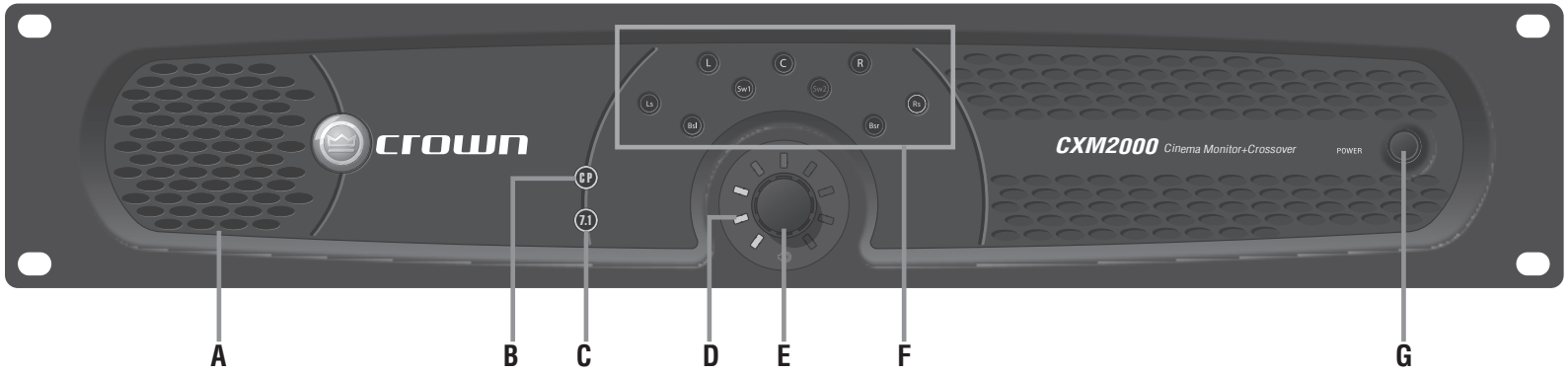


Figure 3.1 Front Panel

图3. 1 前面板

A. Internal Speaker

Plays back the audio, triggered by the activated Channel Button.

B. CP (Cinema Processor) Button

Select to monitor the signals from processor or amplifier.

- Dim green: monitor the audio output from amplifier.
- Bright green: monitor the audio input from cinema processor.

C. 7.1 Button

Select according to the audio source format.

- Dim green: for 5.1 channel format of audio source in 7.1 channel installation system.
- Bright green: for 7.1 channel format of audio source in 7.1 channel installation system.
- No light: for 5.1 or 7.1 channel format of audio source in 5.1 channel installation system.

- 5.1 channel installation system includes left, right, center, left surround and right surround channel speakers, and low frequency effect channel.
- 7.1 channel installation system includes left, right, center, left surround, right surround, back surround left and back surround right channel speakers, and low frequency effect channel.

D. Volume Indicators

Indicates current volume level. The number of lights represents the volume level of the built-in monitor speaker.

E. Volume Control Knob

Adjusts the monitor volume of the CXM2000 internal speaker.

F. Channel Buttons

Select to monitor each available channel of the installation system.
L: Left Channel
R: Right Channel
C: Center Channel
Ls: Left Surround Channel
Rs: Right Surround Channel
Bsl: Back Surround Left Channel
Bsr: Back Surround Right Channel
SW1/SW2: Low Frequency Effect Channel

- Dim green: the channel is available for monitoring.
- Bright green: the channel is being monitored through the internal speaker of the CXM2000.
- Solid red: the channel has fault.
- Solid orange: the channel has fault and is being monitored.
- No light: the channel is not connected into the installation system.

G. Power Switch

On/Off switch applies AC power to the CXM2000.

A. 内置扬声器

播放被选声道的音频信号。

B. CP（影院处理器）按键

根据监听的需求切换。

- 微亮绿色：监听从功放输出的音频信号；
- 高亮绿色：监听从影院处理器输入的音频信号。

C. 7.1按键

根据输入的电影格式切换。

- 微亮绿色：安装系统为7. 1声道，输入的电影格式为5. 1声道；
- 高亮绿色：安装系统为7. 1声道，输入的电影格式为7. 1声道；
- 不亮：安装系统为5. 1声道，输入的电影格式为5. 1或7. 1声道。

- 5. 1声道安装系统是指包含左、中、右、左环绕和右环绕声道以及次低频声道的系统。
- 7. 1声道安装系统是指包含左、中、右、左环绕、右环绕、左后环绕和右后环绕声道以及次低频声道的系统。

D. 音量指示灯

表示当前音量等级，指示灯亮灯数越多等级越高，亮灯数越少等级越低。

E. 音量调节旋钮

用于调节通过CXM2000内置扬声器监听的音量。

F. 监听声道按键

用于选择监听的声道。
L：左声道
R：右声道
C：中置声道
Ls：左环绕声道
Rs：右环绕声道
Bsl：左后环绕声道
Bsr：右后环绕声道
SW1/SW2：次低频声道

- 微亮绿色：表示该声道可被监听；
- 高亮绿色：表示正通过CXM2000内置扬声器监听该声道信号；
- 红色：表示该声道有故障；
- 橙色：表示该声道有故障，且正在被监听；
- 不亮：表示该声道未连接进系统。

G. 电源开关按键

用于接通或断开CXM2000与交流电的连接。

3 Front/Rear Panel (continued)

3 前/后面板（接上一页）

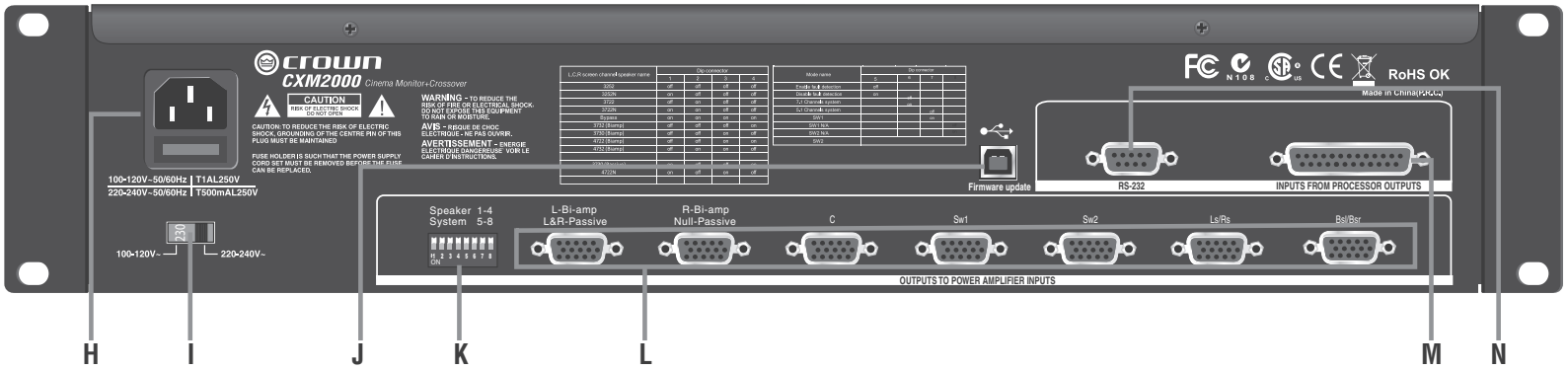


Figure 3.2 Rear Panel

图3. 2 后面板

H. AC Power Inlet
Connects to 100V~120V or 220V~240V, 50Hz/60Hz AC power supply.

I. Power Voltage Switch
Select the power supply voltage to be 100V~120V or 220V~240V.

Warning: Do not switch the voltage when the CXM2000 is connecting to the power supply! Setting wrong voltage will damage it.

J. USB Connector
Connects for firmware update only.

Warning: User must not connect to any equipment via this USB connector, or the CXM2000 or any connected equipment may be damaged.

K. 8-way DIP Switches
Switches 1~4 are for JBL cinema speaker selection. Switch 5 is for fault detection. Switch 6 is for 5.1 or 7.1 channel installation system selection. Switches 7 and 8 are for monitor and fault detection functions of subwoofer 1 and 2.

Warning: Before setting the 8-way DIP switches, the installation system must be correctly wired and the DIP switches must be set according to the configuration matrix provided in "Appendix II. 8-way DIP Switch Configuration" on page 19, or damage may occur.

L. HD15 Output/Input Connectors
Connects the HD-15 connectors to the Crown DSi series or XLC series amplifiers through VGA cables. This allows the CXM2000 to send and receive signals from the amplifiers for fault detection and monitor function.
L-Bi-amp: Connects to the amplifier of left channel (bi-amp speaker) or left and right channels (passive speaker).
R-Bi-amp: Connects to the amplifier of right channel (bi-amp speaker) or no amplifier (passive speaker).
C: Connects to the amplifier of center channel.
SW1: Connects to the amplifier of low frequency effect channel (subwoofer 1).
SW2: Connects to the amplifier of low frequency effect channel (subwoofer 2).
Ls/Rs: Connects to the amplifier of left surround & right surround channels.
Bsl/Bsr: Connects to the amplifier of back surround left & back surround right channels.

Warning: The output connection must match to the DIP switches configuration.

Please see "Appendix I. Pin Definition" on page 18 to select the correct interface converter for the XLR connector.

M. HD25 Input Connector
Connects the HD-25 connector to the main outputs of the cinema processor.

N. RS-232 Connector
Connects the RS-232 connector to the Theater Management System (TMS) for sending fault detection results. Please see "Appendix V. Control ASCII Protocol" and "Appendix VI. Communication Settings" on page 20 for detailed communication protocol.

Warning: The connection must use dedicated serial cable.

H. 交流电源接口
接入100V至120V或220V至240V，50Hz/60Hz的交流电源。

I. 电源电压切换开关
选择正确的供电电压：100V至120V或220V至240V。

注意：务必选择正确的供电电压！通电状态下切勿切换开关！否则会损坏设备。

J. USB接口
只限固件升级连接用。

注意：用户不可以擅自使用该USB接口连接其他设备，否则会损坏CXM2000或任何连接的设备。

K. 8路DIP开关
1至4号为JBL影院扬声器选择开关，第5号为故障检测开关，第6号为安装系统5. 1或7. 1声道选择开关，第7和8号为次低音扬声器1和2的监听和故障检测功能选择开关。

注意：在设置对应的DIP开关前，请务必确定系统连接是正确的，避免不当的设备连接导致任何的损坏。请依据第19页的"附录二、8路DIP开关设置"进行相应的系统设置。

L. 15针输出/输入接口
15针接口通过VGA线缆连接Crown DSi或XLC系列功放，供CXM2000输出优化后的音频信号，并接收来自功放的监听信号和故障检测信号。

L-Bi-amp 接口：双功放驱动时连接左声道的功放，或被动式时连接左右声道的功放。
R-Bi-amp 接口：双功放驱动时连接右声道的功放，或被动式时不连接功放。
C 接口：连接中置声道的功放。
SW1接口：连接次低频声道的功放(次低音扬声器1）。
SW2接口：连接次低频声道的功放（次低音扬声器2）。
Ls/Rs接口：连接左右环绕声道的功放。
Bsl/Bsr接口：连接左右后环绕声道的功放。

注意：声道功放的连接务必与DIP开关设置匹配。

若连接至XLR接口的功放，请参看第18页的"附录一、引脚定义"使用合适的转换接口。

M. 25针输入接口
25针接口用于连接影院处理器作为声源输入。

N. RS-232接口
通过RS-232接口连接至影院管理系统（TMS），发送系统故障检测结果。详细的通讯协议，请参看第20页的"附录五、控制ASCII协议"和"附录六、通讯设置"。

注意：务必使用专用串行电缆进行连接。

4 Setup

4 安装

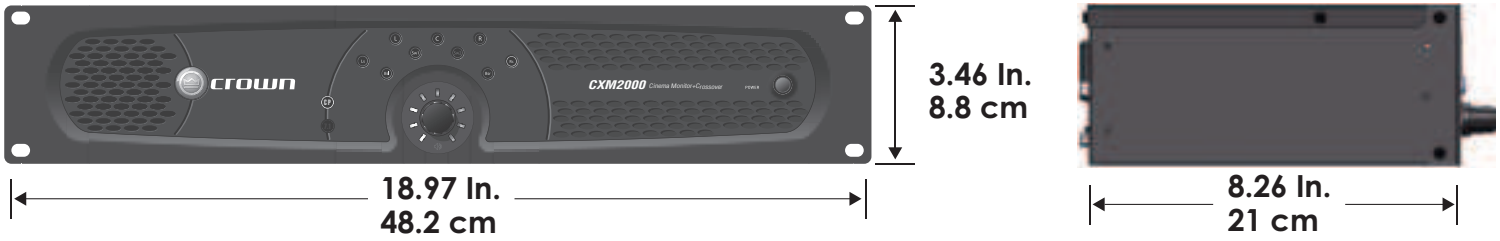


Figure 4.1 Dimensions
图4. 1 尺寸

4.1 Material Required (not supplied)

- HD25 cables;
- HD15 cables;
- RS-232 cables;
- Interface converter (if desired);
- 19" 2U rack (or a stable surface for stacking).

4.2 Mounting the CXM2000

Warning: Before mounting, make sure the CXM2000 is disconnected from the power source, with the power switch in the "OFF" position.

Mount the CXM2000 using 4 machine screws and washers in correct size. Most 2U rack equipment accepts #10-32 machines screws; length used depends upon application.

To mount the CXM2000 on rack:

1. Place the CXM2000 in a suitable location with assistant support to maintain its position.
2. Secure the two bottom screws without tightening.
3. Secure the top two screws without tightening.
4. Adjust the position of the CXM2000 and tighten the four mounting screws

4.3 Ensuring Cooling

When using an equipment rack, maintain the minimum space around the unit for proper heat dissipation: 5 cm in front/ behind and 1 cm along the top and sides. DO NOT block the air vents on the right side.

4.1 需求配件（未提供）

- 25针连接线；
- 15针连接线；
- RS-232连接线；
- 转换接口（如果需要）；
- 19寸2U设备支架或用于放置CXM2000的稳固台面。

4.2 安装CXM2000

注意：开始安装前，确保您已断开CXM2000与电源的连接，将其电源开关设置到关闭位置。

使用4枚大小合适的螺丝和垫圈来安装CXM2000。大部分的2U支架使用大小为#10-32的螺丝，长度取决于设备规格。

安装您的CXM2000：

1. 把CXM2000置于合适的位置，并助其固定；
2. 装上下方的两个螺丝，但不用旋紧；
3. 装上上方的两个螺丝，但不用旋紧；
4. 调整CXM2000至合适的位置，再逐个旋紧四角已上好的螺丝。

4.3 保证正常散热

在使用设备支架时，设备前后至少预留5厘米的空间，两侧和顶盖至少预留1厘米的空间作为散热用途。不要堵塞机器右侧的通风孔。

4 Setup (continued)

4 安装（接上一页）

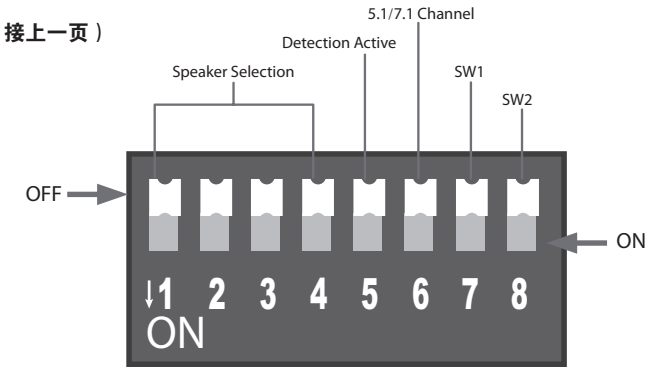


Figure 4.2 8-way DIP Switch

图4. 2 8路DIP开关

4.4 Wiring the System

You must be clear on the speaker model and system wiring design before setting the DIP switches and then configure your system correspondingly.

4.4.1 Setting the DIP Switches

WARNING: To avoid malfunctioning, do not change any DIP switch setting while the system is powered on!

1. Setting #1-4 DIP Switches: Speaker Model Selection

The CXM2000 can optimize JBL cinema speaker's performance. If you are using JBL cinema speakers, please consult "Appendix II. 8-way DIP Switch Configuration" on page 19 to set the correct DIP switch. If you are not using JBL cinema speakers or the speaker model is not listed in the appendix, please set the #1-4 DIP switches to ON as bypass mode.

2. Setting #5 Switch: Fault Detection

The CXM2000 provides fault detection feature in systems using Crown XLC amplifiers. Please select OFF to enable or ON to disable fault detection feature.

3. Setting #6 Switch: 5.1/7.1 Channel Speaker System

Please make sure whether your installation system is 5.1 channel speaker mode (including left, right, center, left surround and right surround channel speakers, and low frequency effect channel) or 7.1 channel speaker mode (including left, right, center, left surround, right surround, back surround left and back surround right channel speakers, and low frequency effect channel). Select ON for 5.1 channel installation system or OFF for 7.1 channel installation system.

4. Setting #7 Switch: Subwoofer 1 (Low frequency channel)

Select OFF to enable or ON to disable the monitor and fault detection functions on the low frequency channel of subwoofer 1. The #7 switch will not affect the output of subwoofer 1.

5. Setting #8 Switch: Subwoofer 2 (Low frequency channel)

Select ON to enable or OFF to disable the monitor and fault detection functions on the low frequency channel of subwoofer 2. The #8 switch will not affect the output of subwoofer 2.

4.4.2 Connecting to Cinema Processor

Use the HD-25 cable to connect the cinema processor to the CXM2000 as shown in *figure 4.3*. Please see "Appendix I. Pin Definition" on page 18 for the HD-25 pin definition.

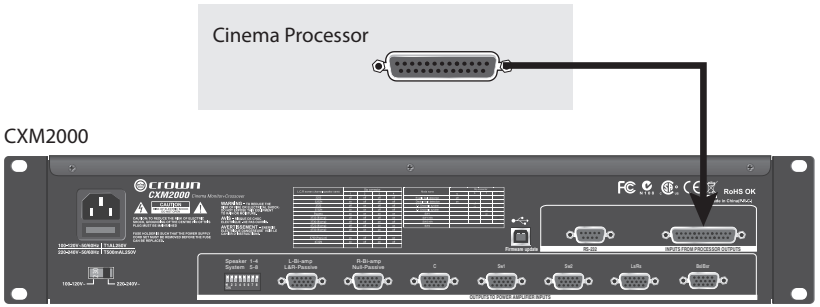


Figure 4.3 Connect the CXM2000 to Processor

图4. 3 连接CXM2000至处理器

4.4 连接系统

在设置DIP开关和开启CXM2000前，请先了解您的扬声器型号以及整个系统的设计，再按需要进行设置。

4.4.1 设置DIP开关

注意：为避免引起故障，请勿在系统处于开机状态时更改设备上任何DIP开关设置！

1. 设置1~4号DIP开关：扬声器型号选择；

CXM2000可以自动优化JBL影院扬声器的播放效果。如果您使用的是JBL影院扬声器，请参看第19页的"附录二、8路DIP开关设置"为连接的JBL扬声器对应型号设置正确的DIP开关。如果您使用的扬声器不为JBL影院扬声器或型号不在列表中，请设置为旁路模式，即1~4号DIP开关都为ON。

2. 设置5号DIP开关：故障检测；

CXM2000可以配合Crown XLC系列功放提供故障检测功能。可设置开关OFF启动此功能，或设置开关ON关闭功能。

3. 设置6号DIP开关：选择音频安装系统为5. 1或7. 1声道；

请先了解您的音频安装系统为5. 1声道（包括左、中、右、左环绕和右环绕声道以及次低频声道） 还是7. 1声道（包括左、中、右、左环绕、右环绕、左后环绕和右后环绕声道以及次低频声道）。设置开关ON对应5. 1声道音频安装系统，或设置开关OFF对应7. 1声道音频安装系统。

4. 设置7号DIP开关：次低音扬声器1（次低频声道）；

设置开关OFF打开或ON关闭对次低音扬声器1的次低频声道的监听和故障检测功能。该DIP开关不会影响次低音扬声器的正常输出。

5. 设置8号DIP开关：次低音扬声器2（次低频声道）；

设置开关ON打开或OFF关闭对次低音扬声器2的次低频声道的监听和故障检测功能。该DIP开关不会影响次低音扬声器的正常输出。

4.4.2 连接至处理器

使用25针接口线缆连接处理器的输出接口和CXM2000的输入接口，如*图4. 3*。 关于25针接口的引脚定义，请查看第18页的"附录一、引脚定义"。

4 Setup (continued)

4 安装（接上一页）

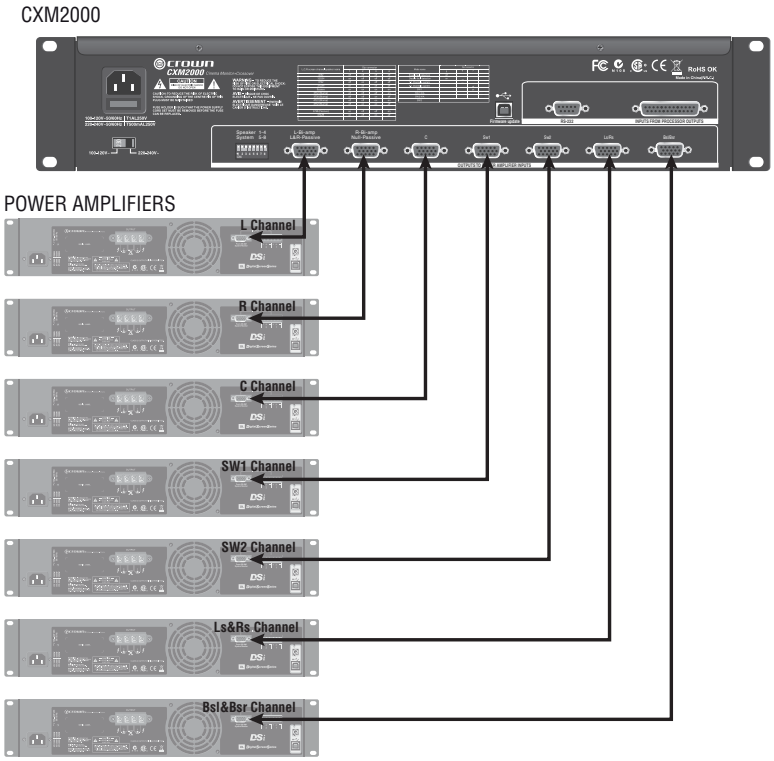


Figure 4.4 Connect the CXM2000 to bi-amplified cinema speakers system

图4. 4 连接CXM2000至双功放通道驱动式扬声器系统

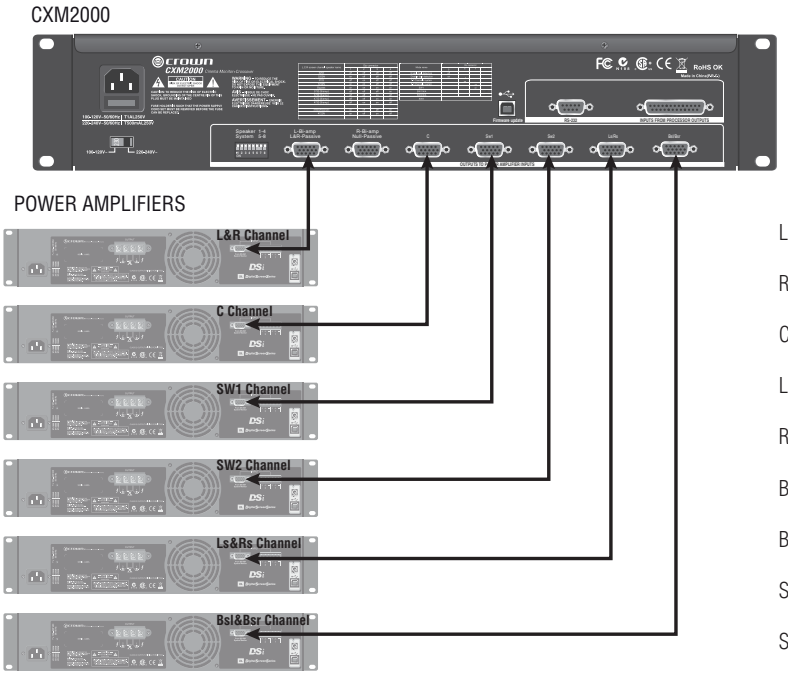


Figure 4.5 Connect the CXM2000 to passive cinema speakers system

图4. 5 连接CXM2000至被动式扬声器系统

L: Left Channel 左声道
R: Right Channel 右声道
C: Center Channel 中置声道
Ls: Left Surround Channel 左环绕声道
Rs: Right Surround Channel 右环绕声道
Bsl: Back Surround Left Channel 左后环绕声道
Bsr: Back Surround Right Channel 右后环绕声道
SW1: Low Frequency Effect Channel 1 次低频声道1
SW2: Low Frequency Effect Channel 2 次低频声道2

4.4.3 Connecting the CXM2000 output to amplifier

Use the HD-15 cable to connect the Crown DSi series or XLC series amplifiers to the CXM2000. Please refer to *figure 4.4* to connect the CXM2000 to the amplifiers in bi-amplified cinema speakers system and *figure 4.5* in passive cinema speakers system.

If the CXM2000 is connected to an amplifier with XLR connector, please refer to "Appendix I. Pin Definition" on page 18 to select the correct interface converter.

4.4.3 连接至功放

使用15针接口线缆连接Crown DSi系列或XLC系列功放的输入接口和CXM2000的输出接口。如*图4. 4*所示为连接CXM2000至双功放通道驱动式扬声器系统的各个声道功放，*图4. 5*所示为连接CXM2000至被动式扬声器系统的各个声道功放。

若要连接至XLR接口的功放，请参看第18页的"附录一、引脚定义"选择合适的转换接口进行连接。

4 Setup (continued)

4 安装（接上一页）

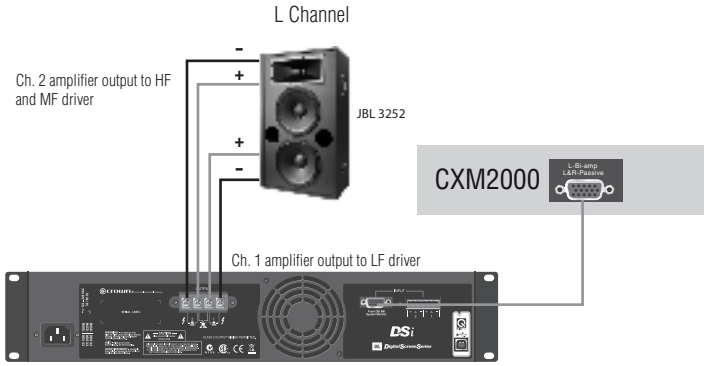


Figure 4.6 Connect to the bi-amp speaker

图4. 6 连接双功放通道驱动式扬声器

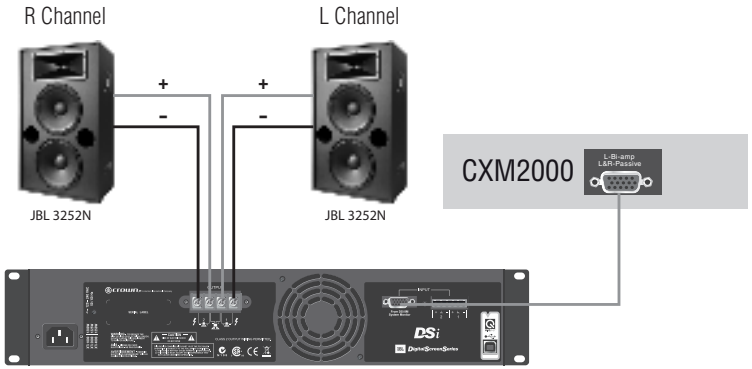


Figure 4.7 Connect to the passive speaker

图4. 7 连接被动式扬声器

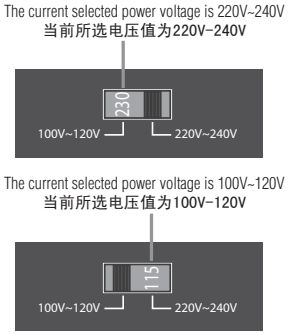


Figure 4.8 Power Supply Voltage Switch configuration example

图4. 8 电压切换开关设置示例

4.4.4 Connecting amplifier to speakers

Typical wiring are shown in *figure 4.6* and *figure 4.7*. The CXM2000 has onboard DSP presets. All the available information can be found in "Appendix II. 8-way DIP Switch Configuration" and "Appendix III. DSP Preset Information" on page 19.

- Connecting to the bi-amp speaker

In *figure 4.6*, the CXM2000 is set to the JBL 3252 preset which includes crossover, EQ filters, delay, and more. Connects Channel 1 loudspeaker's positive (+) lead to Channel 1 positive (+) terminal of amplifier; repeat for negative (–). Repeat Channel 2 wiring as for Channel 1.

- Connecting to the passive speaker

In *figure 4.7*, the CXM2000 is set to the JBL 3252N preset which includes crossover, EQ filters, delay, and more. Connects the positive (+) of the speaker of left channel to Channel 1 positive (+) terminal of amplifier; repeat for negative (–). Repeat Channel 2 wiring as for Channel 1 to connect the speaker of right channel.

4.4.5 Connecting the CXM2000 to AC power supply

Before operating the CXM2000, please connect it to the AC mains with the supplied AC power cord set. Before connecting the CXM2000 to power supply, ensure its power switch is in the "OFF" position. Do not disconnect the CXM2000 when it is on. If you ever need to make any wiring or installation changes, don't forget to turn off the CXM2000 and disconnect the power cord.

1. Set the Power Voltage Switch to the position of correct voltage as shown in *figure 4.8*;
2. Connect the IEC end of the cord set to the IEC connector on the CXM2000;

WARNING: The third prong of this connector (grounding) is an important safety feature. Do not attempt to disable this ground connection by using an adapter or other methods.

3. Plug the other end of the cord set to the AC mains.

4.4.4 连接功放至扬声器

典型输出接线如*图4. 6*和*图4. 7*所示。CXM2000内置预设DSP，所有可预设参数请查看第19页的"附录二、8路DIP开关设置"和"附录三、DSP预设信息"。

- 连接双功放通道驱动式扬声器

如*图4. 6*，CXM2000已预设JBL 3252扬声器分频、均衡器、延迟等参数。连接扬声器低频驱动的正极至功放通道1的正极，并以同样的方法正确地连接负极。重复以上步骤正确连接扬声器中高频驱动的正负极至功放通道2。

- 连接被动式扬声器

如*图4. 7*，CXM2000已预设JBL 3252N扬声器分频、均衡器、延迟等参数。连接左声道扬声器全频驱动的正极至功放通道1的正极，并以同样的方法正确地连接负极。重复以上步骤正确连接右声道扬声器全频驱动的正负极至功放通道2。

4.4.5 连接至电源

在操作CXM2000前，请采用原装的交流电线，将您的CXM2000连接到交流电源上。设备电源需在关闭状态下，才能接上电源。已经接上电源，请勿在电源开关开启状态下断开。 如果您需要更改系统接线，请勿忘记将设备关闭并断开其电源线。

1. 如*图4. 8*所示，把电源电压切换开关拨到合适电压的位置；
2. 将电源线的IEC端连接到CXM2000的IEC接口上；

注意：此接口的第三个插脚（接地端）在安全性上起着至关重要的作用。切忌试图使用其它电源线禁用此接地连接。

3. 将电源线的另一端插入电源插座。

5 Operation
5 操作

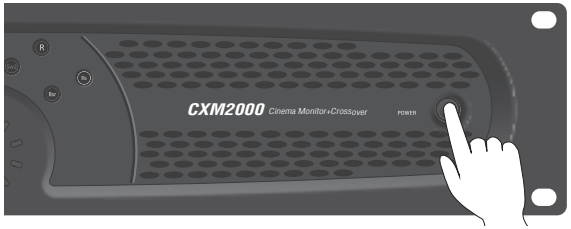


Figure 5.1 Turning on the CXM2000

图5. 1 开启CXM2000

5.1 Precautions

Please take the following precautions for optimum performance and safety:

1. The CXM2000 must be correctly configured before operation, including input and output wiring hookup. Incorrect wiring can result in serious operating difficulties. For information on wiring and configuration, please refer to "4 Setup" on page 9.
2. Never connect the output to a power supply, battery or power mains. Electrical shock may result.
3. Tampering with the circuitry, or making unauthorized circuit changes may be hazardous and invalidate the warranty .
4. Remember: Crown is not liable for damage that results from overdriving other system components.

5.2 Turning on the CXM2000

1. Press the Power button once as shown in *figure 5.1.*
2. The CXM2000 is initialized and all channel buttons glow bright green.
3. The initialization process takes about 7 seconds. When initialized, the buttons will glow according to the previously used settings (except red/orange).
4. After about 5 seconds the CXM2000 is ready for operation.

5.3 Optimizing Speaker Performance

With onboard JBL cinema speaker parameters, including crossover, EQ filters, delay, and more, the CXM2000 will enhance the performance of JBL cinema speakers (please refer to "Appendix II. 8-way DIP Switch Configuration" on page 19 for the supported models).

This feature can also be implemented on amplifiers with XLR connectors. Please refer to "Appendix I. Pin Definition" on page 18 to select the correct interface converter.

5.4 Switching Audio Source Format

According to the audio source format, press the 7.1 button on the front panel of the CXM2000 as shown in *figure 5.2.* This button is only available in 7.1 channel installation system. It will not glow if the system is not set up correctly as 7.1 channel installation system.

- If the audio source is 5.1 channel format, press till dim green. The left surround and right surround audio signals will output through the CXM2000 to the speakers of left surround, right surround, back surround left and back surround right channels in the system.
- If the audio source is 7.1 channel format, press till bright green. The back surround left and back surround right audio signals will output through the CXM2000 to the speakers of back surround left and back surround right channels in the system.

WARNING: Press the button according to the audio source format, or the speakers of back surround left and back surround right channels will not have the correct output signals.

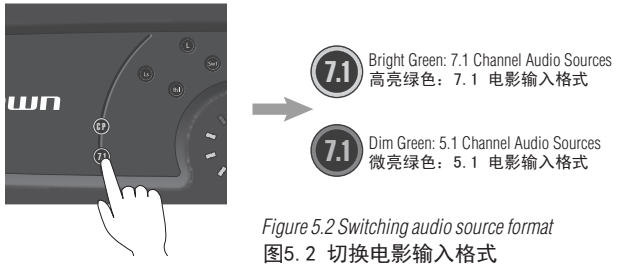


Figure 5.2 Switching audio source format

图5. 2 切换电影输入格式

5.1 预防措施

为了获取最佳性能和安全，请采取以下的预防措施：

1. 使用前，必须针对设备的正常运行进行配置，其中包括输入和输出配线连接。接线不当将会导致操作相当困难，甚至损坏设备。有关接线和配置的信息，请参考第9页的"4 安装"。
2. 不要将输出端连接到电源、电池或供电网，否则会导致电击发生。
3. 篡改电路或在未经允许的情况下改动电路是很危险的，并导致本产品无法获取保修。
4. 切记：由于超负荷驱动其它系统组件而导致的设备损坏，Crown 概不负责。

5.2 开启设备

1. 如*图5. 1*所示，按下CXM2000前面板的电源按键。
2. 初始化CXM2000且所有声道按键高亮绿色。
3. 约7秒后，初始化完成，所有按键的点亮状态跟上一次关机前的一样（红/橙色除外）。
4. 约5秒后，CXM2000开始正常工作。

5.3 使用扬声器优化功能

CXM2000内置JBL影院扬声器参数，包括分频、均衡器、延迟等, 可以为JBL扬声器输出音频提供自动优化功能（支持型号请参看第19页的"附录二、8路DIP开关设置"）。

此功能除支持15针接口的功放外，也可配合XLR接口的功放使用（请参看第18页的"附录一、引脚定义"配置合适的转换接口连接CXM2000）。

5.4 切换电影输入格式

根据输入的电影格式，如*图5. 2*所示按压CXM2000前面板上的7. 1按键。此按键只在安装系统为7. 1声道时有效并亮灯，其他情况无效且不亮。

- 当电影输入格式为5. 1声道时，按压按键至微亮绿色，此时左右环绕音频信号通过CXM2000输出至安装系统的左右环绕声道以及左右后环绕声道扬声器；
- 当电影输入格式为7. 1声道时，按压按键至高亮绿色，此时左右后环绕音频信号通过CXM2000输出至安装系统的左右后环绕声道扬声器。

注意：请务必按音源输入的声道正确按压按键，否则会出现左右后环绕声道扬声器无输出或输出错误。

5 Operation (continued)

5 操作（接上一页）

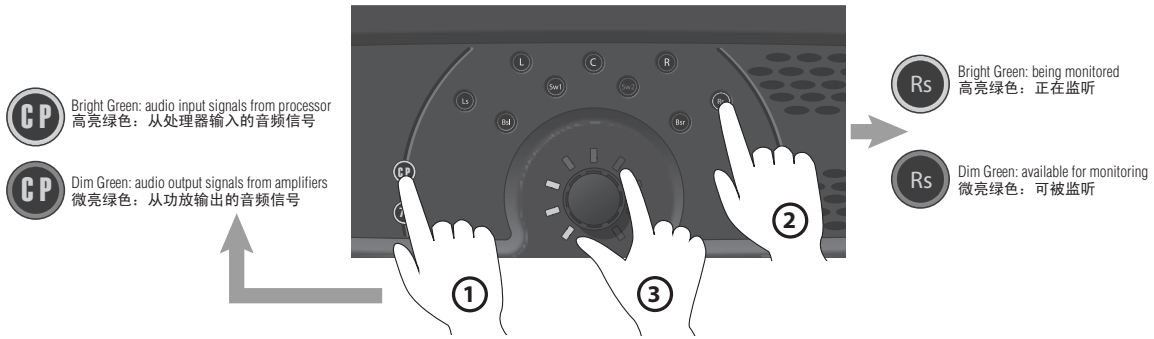


Figure5.3 Monitoring
图5. 3 监听操作

5.5 Monitoring Audio Signals

Monitor only works in systems using Crown DSi series or XLC series amplifiers. Only one channel can be chosen to monitor at a time.

Monitor the audio input signals from processor as shown in *figure 5.3*:

1. Press the CP button till bright green.
2. Press the specified channel button and monitor the audio of selected channel through the CXM2000 built-in speaker. The channel is unavailable for monitoring if its button does not glow.
3. Turn the volume control knob to adjust the monitor volume (Please refer to "Appendix IV. Monitor Volume Level" on page 19 for proper volume level). This operation will not change the processor input volume. Changing the processor input volume will correspondingly change the monitor volume.
4. Press another channel button and monitor the audio of corresponding channel through the CXM2000 built-in speaker. The CXM2000 will stop monitoring the signal of the previously monitored channel as soon as a new channel is selected for monitoring. The monitor volume of selected channel will remain the same as previous channel.

If the audio source format is 5.1 channel and the installation system is 7.1 channel, you will not hear any sound from the CXM2000 by pressing the Bsl and Bsr button but will hear sound from the corresponding speakers of the installation system.

What happens if you don't hear any sound from the CXM2000 speaker when pressing a channel button:

1. The monitor volume is too low. Increase the monitor volume by turning the volume control knob.
2. There is currently no audio signal on the selected audio channel. Confirm there is audio on the selected channel.
3. The audio signal input is faulty. Check if the volume of cinema server and processor is too low or has problem.
4. The built-in speaker of the CXM2000 is not functioning properly. Select another channel to monitor. If you are unable to hear sound from any of the audio channels through the CXM2000 built-in speaker but do hear through the installed system speakers, please consult the local retailer.

Monitor the audio output signals from processor as shown in *figure 5.3*:

1. Press the CP button till dim green.
2. Press the specified channel button and monitor the audio of selected channel through the CXM2000 built-in speaker. The channel is unavailable for monitoring if its button does not glow.
3. Turn the volume control knob to adjust the monitor volume (Please refer to "Appendix IV. Monitor Volume Level" on page 19 for proper volume level). This operation will not change the amplifier output volume. Changing the amplifier output volume will correspondingly change the monitor volume.
4. Press another channel button and monitor the audio of corresponding channel through the CXM2000 built-in speaker. The CXM2000 will stop monitoring the signal of the previously monitored channel as soon as a new channel is selected for monitoring. The monitor volume of selected channel will remain the same as previous channel.

5.5 使用音频监听功能

此功能仅实现于使用Crown DSi系列或XLC系列功放的系统中，且每一次只能选择一个声道进行监听。

监听处理器输入的音频信号，如*图5.3*所示进行操作：

1. 按压CP按键至高亮绿色；
2. 按压您需要监听的声道按键，CXM2000内置扬声器将播放对应声道的监听音频，不亮灯的声道不可监听；
3. 扭动音量旋钮选择合适的监听音量（可参看第19页的"附录四、监听音量等级"选择合适的音量等级），此操作不会影响处理器的输入音量，但调整处理器的音量会相应改变监听音量；
4. 按压另一个声道按键，CXM2000内置扬声器将停止播放上一声道的监听音频，转而播放另一对应声道的监听音频，此时监听音量维持上一声道的设置不变。

若在7.1声道安装系统中播放5.1声道格式的电影，按压Bsl和Bsr按键CXM2000的扬声器不会有声音输出，但安装系统对应声道的扬声器有声音输出。

如果按压声道按键后，从CXM2000内置扬声器里听不到声音，可能是：

1. 监听音量过低。请扭动音量旋钮调高监听音量。
2. 播放的音源正好此时对被选声道无信号输入。请确认所选声道是否有输出。
3. 外部设备音频信号输入有问题。请检查影院服务器和处理器是否音量过低或有故障。
4. CXM2000内置扬声器有故障。请选择其他声道进行监听，若所有声道均不能听到监听声音，但安装系统的扬声器有声音，请与当地的零售商联系。

监听功放输出的音频信号，如*图5.3*所示进行操作：

1. 按压CP按键至微亮绿色；
2. 按压您需要监听的声道按键，CXM2000内置扬声器将播放对应声道的监听音频，不亮灯的声道不可监听；
3. 扭动音量旋钮选择合适的监听音量（可参看第19页的"附录四、监听音量等级"选择合适的音量等级），此操作不会影响功放的输出音量，但调整功放的音量会相应改变监听音量；
4. 按压另一个声道按键，CXM2000内置扬声器将停止播放上一声道的监听音频，转而播放另一对应声道的监听音频，此时监听音量维持上一声道的设置不变。

5 Operation (continued)
5 操作 （接上一页）

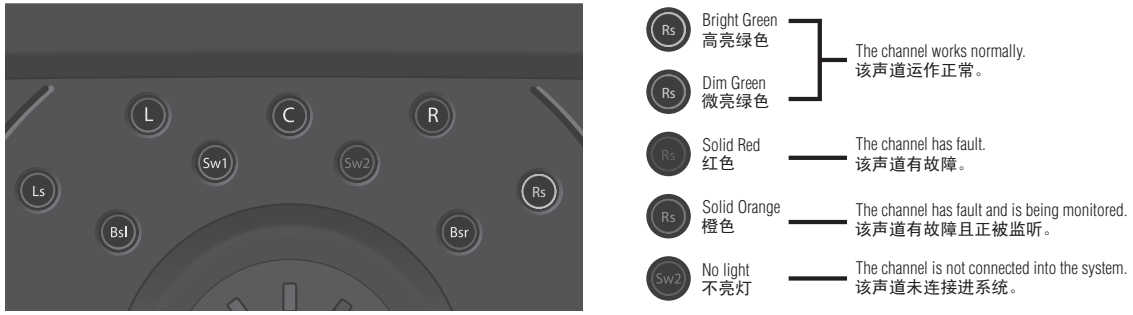


Figure5.4 Fault Detection

图5. 4 检测故障

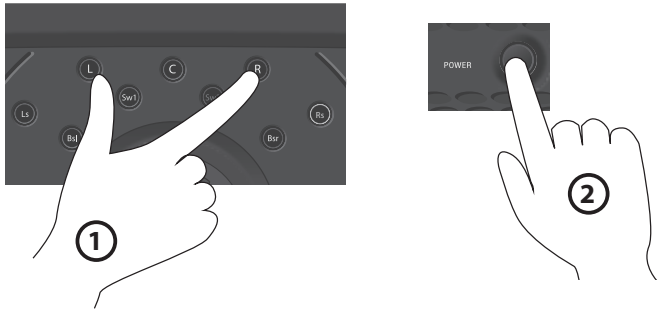


Figure5.5 Auto Fault Detection

图5. 5 自动检测故障

What happens if you don't hear any sound from the CXM2000 when pressing a channel button:

1. The monitor volume is too low. Increase the monitor volume by turning the volume control knob.
2. There is currently no audio signal on the selected audio channel. Confirm there is audio on the selected channel.
3. The amplifier output volume is too low. Increase the amplifier output volume.
4. The output of audio signal is faulty.
   - If fault detection is enabled (#5 DIP switch is OFF and connected with Crown XLC series amplifiers), and:
     - the selected channel button is solid orange. Check the power supply of corresponding amplifier and the connection of amplifier and speaker.
     - the selected channel button is bright green. Do auto fault detection when finish the play (refer to"5.6.1 Auto Fault Detection" on page 16).
   - If fault detection is disabled (#5 DIP switch is ON). Check the corresponding amplifier.
5. The built-in speaker of the CXM2000 is not functioning properly. Select another channel to monitor. If you are unable to hear sound from any of the audio channels through the CXM2000 built-in speaker but do hear through the installed system speakers, please consult the local retailer.

5.6 Implementing Fault Detection

According to the feedback signals from amplifiers, the CXM2000 can detect if the amplifier or speaker has broken connections or short circuits. Fault detection only works in systems using Crown XLC amplifiers with the #5 DIP switch of the CXM2000 is in the OFF position.

CXM2000 fault detection includes auto, manual and real-time modes. It is suggested to implement the auto or manual fault detection after the cinema system is turned on. Afterward the CXM2000 will continue to detect faults if the real-time fault detection mode is on.

Please ensure all amplifiers are powered on before implementing fault detection function.

如果按压声道按键后，从CXM2000内置扬声器里听不到声音，可能是：

1. 监听音量过低。请扭动音量旋钮调高监听音量。
2. 播放的音源正好此时对被选声道无信号输入。请确认所选声道是否有输出。
3. 功放的输出音量过低。请调高功放的音量。
4. 功放音频信号输出有问题。
   - 若故障检测功能已开启（第5号DIP开关设置为OFF且连接的为Crown XLC系列功放）：
     – 按键亮橙色，请检查对应功放的开启及功放和扬声器连接状态。
     – 按键高亮绿色，请在播放完毕后执行自动检测（请看第16页的“5. 6. 1 自动故障检测”），排除功放或扬声器故障。
   - 若故障检测功能关闭（第5号DIP开关设置为ON）。请检查对应功放的连接状态及是否有故障。
5. CXM2000内置扬声器有故障。请选择其他声道进行监听，若所有声道均不能听到监听声音，但安装系统的扬声器有声音，请与当地的零售商联系。

5.6 使用故障检测功能

CXM2000可以通过接收从功放反馈回来的信号，判断功放或扬声器系统是否断路或短路。此功能仅实现于使用Crown XLC系列功放的系统中，使用前需设置CXM2000的第5号DIP开关设为OFF。

CXM2000故障检测功能包括自动、手动和实时检测。建议在正式播放前，先进行自动或手动故障检测，以后只需要保持实时检测功能，即可在播放过程中持续获得功放反馈回来的故障信息。

在使用故障检测功能前，请先确保所有功放已经开启。

5 Operation (continued)

5.6.1 Auto Fault Detection

You can run auto fault detection when the cinema system is first installed as well as at regular intervals in the future. When auto fault detection is on, high volume pink noise will be heard through the installed system speakers. It is suggested to keep persons away from the installed system speakers in order to avoid unpleasant sounds and possible hearing damage.

1. Press and hold the L and R channel buttons at the same time as shown in *figure 5.5*.
2. Press the power button once to turn on the CXM2000 as shown in *figure 5.5*.
3. When the left and right channel buttons glow bright green and other lights are off, the auto fault detection is successfully enabled. Release all buttons. (If it is unsuccessful, please power off the CXM2000 and repeat the steps 1 to 3 above.)
4. After about 10 seconds, if no fault is detected, all channel buttons will glow as normal with short brust of sound from the installed system speakers. If any fault is detected, all channel buttons will blink green with testing sound from installed system speakers for another 10 seconds. After that, the corresponding channel button glows red/orange (check the connection and power supply of corresponding amplifier and speaker), and other buttons glow as normal.
5. To ensure the fault has been fixed, turn off the CXM2000 and repeat steps 1 to 4 above to confirm the fault(s) have been resolved.

5.6.2 Manual Fault Detection

If you prefer not to turn off the CXM2000 to enable auto fault detection, you may enable manual fault detection by following steps:

1. For the 7.1 channel installation system, press the 7.1 button till dim green and play a minimum of 2 minutes of 5.1/7.1 channel audio through the server. For a 5.1 channel system, play a minimum of 2 minutes of 5.1 channel audio through the server.
2. If any faults are detected, the corresponding channel button will glow red/orange (check the connection and power supply of corresponding amplifier and speaker).
3. The failed channel button remains red/orange when the audio is stopped. Other buttons will glow as normal.
4. To ensure the fault has been fixed, repeat step 1 above to confirm the fault(s) have been resolved.

5.6.3 Real-time Fault Detection

It is suggested to keep the #5 DIP switch OFF, the CXM2000 will continuously monitor the system for faults while playing a movie. You are not required to run auto or manual fault detection each time a movie is played, however may run auto or manual fault detection at regular intervals. If faults are detected, the corresponding channel button will glow red/orange (check the connection and power supply of the corresponding amplifier and speakers).

The red/orange button will be reset to green after rebooting the CXM2000. It will not change to red to indicate the faults until fault detection is repeated.

The channel button glowing red/orange will not disturb the CXM2000 outputting signals to this channels. If the CXM2000 remains on, the red/orange button will not change to green until the problem is resolved and the fault detection test is repeated (including real-time fault detection).

5 操作 （接上一页）

5.6.1 自动故障检测

您可以在影院系统第一次被使用前进行自动故障检测，以后可定期进行。但注意自动检测期间，安装系统的扬声器会发出一定音量的粉红噪音，建议此时任何人不要靠近安装系统的扬声器，避免受到测试噪音的不良影响。

1. 如*图5.5* 所示，同时按下左、右声道的监听按键不放；
2. 如*图5.5* 所示，按一下电源开关按键开启CXM2000；
3. 当左、右声道的监听按键同时高亮绿色，其他按键不亮时，则自动故障检测启动成功，可放开左、右声道的监听按键。（如果没有启动成功，请关闭CXM2000后，重复执行以上1-3步骤。）
4. 约10秒后，若扬声器系统发出轻微的声音，并立刻恢复正常亮灯模式，则说明无故障声道；若所有声道指示灯持续闪烁，且伴随扬声器系统发出持续的检测声音（建议此时任何人不要靠近安装系统的扬声器，避免受到测试噪音的不良影响），此过程大约再持续10秒，最后按键亮红/橙色的声道即为故障声道，其他按键恢复正常亮灯模式。
5. 当故障修复后，关闭CXM2000并重复执行以上1-4步骤确认故障已排除。

5.6.2 手动故障检测

如果CXM2000已经处于开启状态，而您不想关闭CXM2000重新进行自动检测故障，那您可以按照以下步骤进行手动检测故障：

1. 如果为7.1声道安装系统，按压7.1按键至微亮绿色，然后通过服务器在当前系统播放一段2分钟以上的5.1/7.1声道格式的音频，如果为5.1声道安装系统，可直接在当前系统播放一段2分钟以上的播放5.1声道格式的音频；
2. 在音频播放期间，如果检测到出现故障的声道，该声道按键亮红/橙色（检查功放和扬声器的开启和连接状态）。
3. 停止播放测试音频后，出现故障的声道按键维持亮红/橙色，其他按键维持正常亮灯模式。
4. 当故障修复后，重复执行以上第1步骤确认故障已排除。

5.6.3 实时故障检测

建议保持第5号DIP开关为OFF，CXM2000在播放音频的过程中，可持续接收功放反馈回来的信号，从而判断故障。这样您就不需要在每次播放电影前都进行自动或手动故障检测，自动或手动故障检测定期执行即可。如果检测到出现故障的声道，该声道按键亮红/橙色（检查功放和扬声器的开启和连接状态）。

每次重新启动CXM2000，之前亮红/橙色的按键都会被重置为绿色，需要重新再检测一遍，才能根据是否有故障显示红/橙色或绿色。

声道按键亮红/橙色并不会中断CXM2000对该声道的信号输出。而该亮红/橙色的按键，在故障排除后，CXM2000没有重启的情况下，不会自动变为绿色，需要重新再检测一遍，接收到反馈的检测信号，才会变为绿色。

6 Specifications
6 规格

Performance 性能	CXM2000
Power Consumption **功率**	100V ~120V / 220V ~ 240V, 50Hz / 60 Hz, 50W
Processor Input Channels **处理器输入声道**	8 inputs (Left, Center, Right, Surround Left, Surround Right, Back Surround Left, Back Surround Right, Subwoofer). 8个音频输入声道（左、中置、右、左环绕、右环绕、左后环绕、右后环绕，和次低音）
Input Impedance (Processor Inputs) **输入阻抗（处理器输入）**	>10k Ω
Input Impedance (Power Amplifier Inputs) **输入阻抗（功放输入）**	>10k Ω
Signal to Noise Ratio **信噪比**	104 dB (A weighted) 104dB（A计权）
Crosstalk **串音干扰**	> 80 dB (A weighted) >80 dB（A计权）
Internal Monitor Speaker Power **内置扬声器功率**	8W
DSP Section **DSP实现部分**	DSP only for Left, Right and Center channel speakers DSP只作用于左，右和中置声道扬声器
Input EQ **输入EQ**	High and low shelving filters 高/低架滤波器
Crossover Filters **分频器滤波**	Highpass and lowpass per channel. Butterworth 6/12/18/24/48 dB per octave, Linkwitz-Riley 24/48 dB per octave. Also includes ±15 dB bandpass gain and polarity control. 高低通滤波器/每声道。巴特沃斯6、12、18、24、48dB/每八度。林克威茨-瑞利24、48dB/每八度。以及 ±15dB带通增益和极性控制。
Output EQ **输出EQ**	8 parametric filters per channel 每声道8参数滤波
Delay **延迟**	Up to 10 msec total delay per channel 每声道最高10毫秒延迟
Presets **预设**	11 presets. One is " bypass". Ten are factory-set for JBL cinema systems. 11种预设。其中1项为旁路，其余10项为JBL影院系统准备的出厂预设。
General 一般规格	
Operating Temperature **工作温度**	32°F to 104°F (0°C to 40 °C) 95% relative humidity (non-condensing) 32 °F 到104 °F （0°C到40°C），95%相对湿度（非冷凝）
Dimension (L x D x H) **尺寸**	18.97" X 8.26" X 3.46" (482 mm X 210 mm X 88 mm)
Net Weight **净重**	10.47 lbs (4.75 Kg)
Net Shipping Weight **运出净重**	13.34 lbs (6.05 Kg)

7 Appendix
7 附录

Appendix I. Pin Definition
附录一、引脚定义

1. HD-15

Pin	CXM2000 Description	Crown DSi series	Crown XLC series
1	CH1 Output -	CH1 Input -	CH1 Input -
2	Null	Null	Null
3	V-MON CH1 Input	V-MON CH1	V-MON CH1
4	CH1 Amp status	Null	CH1 Amp status
5	CH1 Load Current status	Null	CH1 Load Current status
6	Sig GND	Sig GND	Sig GND
7	CH1 Output +	CH1 Input +	CH1 Input +
8	CH2 Output +	CH2 Input +	CH2 Input +
9	Null	Null	Null
10	Chassis GND	Chassis GND	Chassis GND
11	CH2 Output -	CH2 Input -	CH2 Input -
12	Null	Null	Null
13	V-MON CH2	V-MON CH2	V-MON CH2
14	CH2 Amp status	Null	CH2 Amp status
15	CH2 Load Current status	Null	CH2 Load Current status

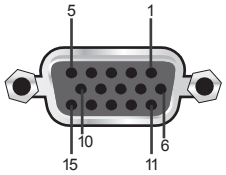
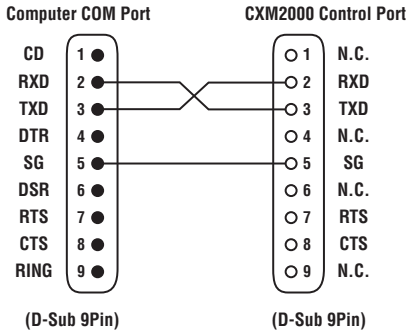


Figure7.1 HD-15 Pin Position
图7. 1 15针接口位置

2. RS-232 (D-Sub 9Pin)



3. HD-25

Pin	Description
1	GND
2	L +
3	Bsl –
4	GND
5	C +
6	Bsr –
7	GND
8	R +
9	GND
10	Ls –
11	Rs –
12	SW –
13	GND
14	L –
15	GND
16	Bsl +
17	C –
18	GND
19	Bsr +
20	R –
21	GND
22	GND
23	Ls +
24	Rs +
25	SW +

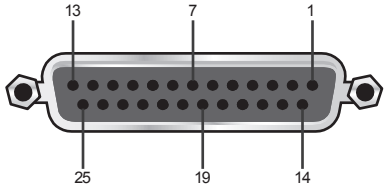


Figure7.2 HD-25 Pin Position
图7. 2 25针接口位置

7 Appendix (continued)

7 附录（接上一页）

Appendix II. 8-way DIP Switch Configuration
附录二、8路DIP开关设置

This table can also be found in the rear panel of the CXM2000. Please set the switch according to your system based on the below table.
此表格也可在CXM2000后面板找到。请依据表格提示，按实际系统情况设置DIP开关。

Function 功能	8-way DIP Switch Position 8路DIP开关位置			
Speaker Model 扬声器型号	1	2	3	4
3252 (Bi-Amp)	off	off	off	off
3252N (Passive)	on	off	off	off
3722 (Bi-Amp)	off	on	off	off
3722N (Passive)	on	on	off	off
Bypass (Passive)	on	on	on	on
3732 (Bi-Amp)	off	off	off	on
3730 (Bi-Amp)	off	off	on	off
4722 (Bi-Amp)	off	off	on	on
4732 (Bi-Amp)	off	on	on	off
3730 (Passive)	on	off	off	on
4722N (Passive)	on	off	on	off
Mode 模式	5	6	7	8
Enable fault detection	off			
Disable fault detection	on			
7.1 channel installation system		off		
5.1 channel installation system		on		
SW1			off	
SW1 N/A			on	
SW2 N/A				off
SW2				on

Appendix III. DSP Preset Information
附录三、DSP预设信息

DSP preset information to correctly connect the speakers in the system.
根据以下DSP预设信息正确连接系统中的扬声器。

	CHANNEL ASSIGNMENTS	
Speaker Model 扬声器型号	CHANNEL 1	CHANNEL 2
3252 (Bi-Amp)	LF	HF
3252N (Passive)	Full range	
3722 (Bi-Amp)	LF	HF
3722N (Passive)	Full range	
3732 (Bi-Amp)	LF	MHF
3730 (Bi-Amp)	LF	MHF
4722 (Bi-Amp)	LF	HF
4732 (Bi-Amp)	LF	MHF
3730 (Passive)	Full range	
4722N (Passive)	Full range	

Appendix IV. Monitor Volume Level
附录四、监听音量等级

LEDs 亮灯数	Output(dB) 输出
0	-∞dB (Muted)
1	-60dB
2	-40dB
3	-20dB
4	-12dB
5	-6dB
6	-0.5dB
7	2.9dB
8	6.5dB
9	9.5dB

7 Appendix (continued)

7 附录（接上一页）

Appendix V. Control ASCII Protocol
附录五、控制ASCII协议

Connecting the CXM2000 to PC via RS-232 connector allows the fault detection details to be viewed. The command protocol between the CXM2000 and basic cinema system is the ASCII protocol, which is used to implement the fault detection management.
通过RS-232接口可以连接CXM2000至PC，以查看故障检测所得信息。该连接使用下表所示的ASCII协议，可以实现故障检测管理的功能。

Input Command 输入命令	Feedback from CXM2000 返回信息	Note 详情
CXM2000 System Status Inquire	All system Amplifiers and speakers are GOOD. L Low Frequency Amplifier status is Fault. L Low Frequency Speaker status is Fault. L High Frequency Amplifier status is Fault. L High Frequency Speaker status is Fault. R Low Frequency Amplifier status is Fault. R Low Frequency Speaker status is Fault. R High Frequency Amplifier status is Fault. R High Frequency Speaker status is Fault. C Low Frequency Amplifier status is Fault. C Low Frequency Speaker status is Fault. C High Frequency Amplifier status is Fault. C High Frequency Speaker status is Fault. L Amplifier status is Fault. L Speakers status is Fault. R Amplifier status is Fault. R Speakers status is Fault. C Amplifier status is Fault. C Speakers status is Fault. SW1 Amplifier status is Fault. SW1 Speakers status is Fault. SW2 Amplifier status is Fault. SW2 Speakers status is Fault. LS Amplifier status is Fault. LS Speakers status is Fault. RS Amplifier status is Fault. RS Speakers status is Fault. BSL Amplifier status is Fault. BSL Speakers status is Fault. BSR Amplifier status is Fault. BSR Speakers status is Fault.	All channels are good Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Bi-Amp mode Passive mode Passive mode Passive mode Passive mode Passive mode Passive mode SW1 is available SW1 is available SW2 is available SW2 is available
CXM2000 System Configuration	L, R, C screen Speaker is JBL “XXXXXXXX” Speaker is “XXXXXXXX” Fault detection is “XXXXXXXX” System is “X.1” Speaker SW1 is “XXXXXXXX” SW2 is “XXXXXXXX” Application Version is “XXXXXXXX” HW Version is “X”	Speaker Name “Bi-Amp” or “Passive” “Enable” or “Disable” “5.1” or “7.1” “Enable” or “Disable” “Enable” or “Disable” A, B, C, D…

* The data is all in ASCII format. If the input command cannot be recognized, it will prompt the information below:
* 所有数据都为ASCII格式。如果输入的命令不能被识别，将会提示以下信息：

Invalid Command
1) CXM2000 System Configuration
2) CXM2000 System Status Inquire

Appendix VI. Communication Settings
附录六、通讯设置

Item	Specification
Operating Mode	Full Duplex
Hardware Handshaking	None
Flow control	None
Synchronous system	Asynchronous
Transmission	9600
Data Length	8 bits
Parity	None
Stop Bit	1

8 Service

Crown products are quality units that rarely require servicing. Before returning your unit for service, please contact Crown Technical Support to verify the need for servicing.

This unit has very sophisticated circuitry which should only be serviced by a fully trained technician. This is one reason why each unit bears the following label:



CAUTION: To prevent electric shock, do not remove covers. No user serviceable parts inside. Refer servicing to a qualified technician.

Complete the Crown Audio Factory Service Information form, in the back of this manual, when returning a Crown product to the factory or authorized service center. The form must be included with your product inside the box or in a packing slip envelope securely attached to the outside of the shipping carton. Do not send this form separately.

Warranty is only valid within the country in which the product is purchased.

8.1 International and Canada Service

Service may be obtained from an authorized service center. (Contact your local Crown/Amcron representative or our office for a list of authorized service centers.) To obtain service, simply present the bill of sale as proof of purchase along with the defective unit to an authorized service center. They will handle the necessary paperwork and repair.

Remember to transport your unit in the original factory pack.

8.2 US Service

Service may be obtained in one of two ways: from an authorized service center or from the factory. You may choose either. It is important that you have your copy of the bill of sale as your proof of purchase.

8.2.1 Service at a US Service Center

This method usually saves the most time and effort. Simply present your bill of sale along with the defective unit to an authorized service center to obtain service. They will handle the necessary paperwork and repair. Remember to transport the unit in the original factory pack. A list of authorized service centers in your area can be obtained from Crown Factory Service, or online from http://www.crownaudio.com/support/servcent.htm.

8.2.2 Factory Service

Crown accepts no responsibility for non-serviceable product that is sent to us for factory repair. It is the owner's responsibility to ensure that their product is serviceable prior to sending it to the factory. Serviceable product list is available at
http://crownweb.crownintl.com/crownrma/.
For more information, please contact us direct.

A Service Return Authorization (SRA) is required for product being sent to the factory for repair. An SRA can be completed online at www.crownaudio.com/support/factserv.htm. If you do not have access to the web, please call Crown's Customer Service at 574.294.8200 or 800.342.6939 extension 8205.

For warranty service, we will pay for ground shipping both ways in the United States. Contact Crown Customer Service to obtain prepaid shipping labels prior to sending the unit. Or, if you prefer, you may prepay the cost of shipping, and Crown will reimburse you. Send copies of the shipping receipts to Crown to receive reimbursement. Your repaired unit will be returned via UPS ground. Please contact us if other arrangements are required.

8.2.3 Factory Service Shipping Instructions:

1. Service Return Authorization (SRA) is required for product being sent to the factory for service. Please complete the SRA by going to www.crownaudio.com/support/factserv.htm. If you do not have access to our website, call 1.800.342.6939, extension 8205 and we'll create the SRA for you.
2. See packing instructions that follow.
3. Ship product to:
   CROWN AUDIO FACTORY SERVICE
   1718 W MISHAWKA RD.
   ELKHART, IN 46517
4. Use a bold black marker and write the SRA number on three sides of the box.
5. Record the SRA number for future reference. The SRA number can be used to check the repair status.

8.2.4 Packing Instructions

Important: These instructions must be followed. If they are not followed, Crown Audio, Inc. assumes no responsibility for damaged goods and/or accessories that are sent with your unit.

1. Fill out and include the Crown Audio Factory Service Information sheet in the back of this manual.
2. Do not ship any accessories (manuals, cords, hardware, etc.) with your unit. These items are not needed to service your product. We will not be responsibility for these items.
3. When shipping your Crown product, it is important that it has adequate protection. We recommend you use the original pack material when returning the product for repair. If you do not have the original box, please call Crown at 800.342.6939 or 574.294.8210 and order new pack material. See instructions for "foam-in-place" shipping pack. (Do not ship your unit in a wood or metal cabinet.)
4. If you provide your own shipping pack, the minimum recommended requirements for materials are as follows:

a. 275 P.S.I. burst test, Double-Wall carton that allows for 2-inch solid Styrofoam on all six sides of unit or 3 inches of plastic bubble wrap on all six sides of unit.

b. Securely seal the package with an adequate carton sealing tape.

c. Do not use light boxes or "peanuts". Damage caused by poor packaging will not be covered under warranty.

Using your 'foam-in-place' shipping pack

Note: The foam-in-place packing is molded so that there is only one correct position for your product.

1. Open carton and lift center cushion leaving both end-cushions in place.
2. Carefully place your product with the product's front panel facing the same direction as arrows indicate.
3. Reset center cushion down over top of product's chassis. The foam-in-place packing was molded to accommodate different chassis depth sizes. If your product's chassis does not completely fill the foam-in-place cavity, you may use a soft but solid packing material (such as paper or bubble wrap) behind the chassis.
4. Enclose the completed Crown Audio Factory Service Information form (or securely attach it to the outside of carton) and re-seal the shipping pack with a sturdy carton sealing tape.

8.2.5 Estimate Approval

Approval of estimate must be given within 30 days after being notified by Crown Audio Inc. Units still in the possession of Crown after 30 days of the estimate will become the property of Crown Audio Inc.

8.2.6 Payment of Non-Warranty Repairs

Payment on out-of-warranty repairs must be received within 30 days of the repair date. Units unclaimed after 30 days become the property of Crown Audio Inc.

If you have any questions, please contact Crown Factory Service.

Crown Factory Service
1718 W. Mishawaka Rd.,
Elkhart, Indiana 46517 U.S.A.

Telephone:
574.294.8200
800.342.6939 (North America,
Puerto Rico, and Virgin Islands only)

Facsimile:
574.294.8301 (Technical Support)
574.294.8124 (Factory Service)

Internet:
http://www.crownaudio.com

8 服务

Crown 产品是高品质设备，需要进行维修服务的情况比较少见。将设备送回维修部门进行维修之前，请联系Crown 技术支持部门，确认维修需要。

此设备具有十分成熟的电路，只能由接受过专门培训的技术人员进行操作，这也是每台设备标注以下标签的原因：

小心：避免电击，不要拆卸外壳。设备内无任何可由用户处理的部件。需要维修，请与专业技术人员联系。

当需要将产品送回到工厂或经授权的服务中心时，请填写完本手册背面的Crown 出厂服务信息。表格必须跟随包装箱内的产品或贴附在包装纸箱的滑动封皮内一起寄送，不可单独寄送。

本产品只能在您购入本产品时的国家和地区进行维修。

8.1 在国际上和加拿大进行的服务

经过授权的服务中心可以对产品进行维修（联系您当地的Crown/Amcron 代理商或我们的办公室，获取授权服务中心表）。要获得服务，只需向授权服务中心提供作为凭证的购买清单以及故障设备。他们将会处理必要的文书工作并进行产品维修。注意使用出厂原包装运送设备。

8.2 在美国进行的服务

可以通过两种方式对产品进行维修：由授权的服务中心或工厂进行处理。您可以任意选择。您需要提供一份购买清单的副本，作为购买凭证。

8.2.1 在美国服务中心执行服务

此方法通常会节省大量的时间和精力。只需向授权服务中心提供作为凭证的购买清单以及故障设备。他们将会处理必要的文书工作并进行产品维修。注意，用出厂原包装运送设。您可从 Crown 工厂服务部门或网页www.crownaudio.com/support/servcent.htm获得您所在区域授权服务中心的清单。

8.2.2 工厂服务部门

Crown对送交给我们并需要在工厂内维修的非保修期内产品不负任何责任。在送交工厂之前，产品所有人需要负责确认产品符合维修要求。可进行维修的产品列表可以在http://crownweb.crownintl.com/crownrma/获得。要获得更多信息，请与我们联系。

对于需要送交工厂进行维修的产品，需提供服务送回认可（SRA）。可以在互联网上完成SRA的填写。

www.crownaudio.com/support/factserv.htm 如果您不便上网，请拨打Crown的客户服务热线：574 294 8200或800 342 6939或8205。

对于保修期内产品，在美国进行的地面运输由我方付费，通过两种方式付款。在送交设备前，请联系Crown客户服务部门，获得已经完成预付款的运输标签。或者，如果您愿意，您可以预先支付运输款项。然后，Crown将为您提供补偿。请将运输收据的副本送交Crown，然后可收到补偿。在完成维修后，我们会通过UPS地面运输，将产品返还。

8.2.3 工厂服务运输说明

1. 对于需要送交工厂进行维修的产品，需提供服务送回认可（SRA）。您可以登陆www.crownaudio.com/support/factserv.htm 在互联网上完成SRA的填写。如果您不便上网，可以拨打电话：1800 342 6939或8205，我们将为您制作一份SRA。
2. 参考下文提及的包装说明。
3. 将产品运送到：

   CROWN AUDIO FACTORY SERVICE
   1718W MISHAWAKA RD.
   ELKHART, IN 46517
4. 在包装箱的三面采用黑体黑色标记，并记下SRA编码。
5. 记录下SRA编号，以备今后参考之用。SRA编码可用来询问维修状况。

8.2.4 包装说明

重要提示：必须按照这些说明进行操作。如果未按照说明操作，Crown Audio 有限公司对送交于我们的受损设备和（或）附件概不负责。

1. 完成对手册背面的Crown Audio 工厂服务信息单的填写。
2. 不要将任意的附件（手册、软电线、硬件等）与设备一起运输。在对产品进行维修时，不需要提供这些物品。我们也不会对这些物品负责。
3. 在运输Crown 产品时，需对产品提供足够的防护。需要送回产品进行维修时，我们建议采用原始的包装材料。如果您不能使用原始的包装材料，需致电Crown，电话号码：800 342 6939 或574 294 8210 并定购新的包装材料。参考说明使用“贴体泡沫”运输包装（不要将产品放置在木制或金属制的包装盒内）。
4. 如果您所使用的是自己提供的包装盒，建议对材料的最低要求是：

   a、275 P.S.I 爆裂测试，双层纸箱，在六面均有２英寸固态聚苯乙烯泡沫塑料或３英寸的塑料泡沫外套。

   b、采用足够的纸箱密封条将包装箱密封牢固。

   c、不要采用轻质盒或“简陋的包装材料”。由于包装简陋造成的损坏不在保修范围内。

采用“贴体泡沫”运输包装

注意：泡沫运输包装是模制的，因此必须将产品放置在其正确的位置上。

1. 打开纸箱，提起中央衬垫，留下两块底端衬垫。
2. 小心安放产品，使产品正面朝向箭头所指方向。
3. 重新将中央衬垫安置在产品的顶部。贴体泡沫是模制的，可以适用于不同深度的底盘。如果产品底盘不能完全适合于贴体泡沫的凹槽，您可以用柔软而可固定的包装材料（例如纸或泡沫外套）放在底盘下。
4. 将填写完全的Crown Audio 工厂服务信息表采用牢固的纸箱密封带寄送（或者贴附在纸箱外侧），再次密封运输包装。

8.2.5 评价确认

在Crown Audio 有限公司通告之后 30 天内，必须提供评价确认。在评价完成 30 天后，如果产品仍然在Crown 处，则产品将成为CrownAudio 有限公司的财产。

8.2.6 非保修期内的维修

对于非保修期内的维修，必须在维修期的30天内付款。对于30天后无人认领的设备，将会变为Crown Audio 有限公司的财产。如果您对此仍有疑问，请联系Crown 工厂服务部：

Crown工厂服务部
1718 W. Mishawaka Rd.,
Elkhart, Indiana 46517 U.S.A.

电话号码:
574.294.8200
800.342.6939（仅限北美，
波多黎各，以及维尔金群岛）

传真号码:
574.294.8301（技术支持部）
574.294.8124（工厂服务部）

互联网网址:
http://www.crownaudio.com

9 Warranty



UNITED STATES & CANADA

SUMMARY OF WARRANTY

Crown International, 1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A. warrants to you, the ORIGINAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW Crown product, for a period of three (3) years from the date of purchase by the original purchaser (the "warranty period") that the new Crown product is free of defects in materials and workmanship. We further warrant the new Crown product regardless of the reason for failure, except as excluded in this Warranty.

Warranty is only valid within the country in which the product was purchased.

ITEMS EXCLUDED FROM THIS CROWN WARRANTY

This Crown Warranty is in effect only for failure of a new Crown product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts. This Crown Warranty also does not extend to the new Crown product if the serial number has been defaced, altered, or removed.

WHAT THE WARRANTOR WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement, or refund. We may not elect refund unless you agree, or unless we are unable to provide replacement, and repair is not practical or cannot be timely made. If a refund is elected, then you must make the defective or malfunctioning product available to us free and clear of all liens or other encumbrances. The refund will be equal to the actual purchase price, not including interest, insurance, closing costs, and other finance charges less a reasonable depreciation on the product from the date of original purchase. Warranty work can only be performed at our authorized service centers or at the factory. Warranty work for some products can only be performed at our factory. We will remedy the defect and ship the product from the service center or our factory within a reasonable time after receipt of the defective product at our authorized service center or our factory. All expenses in remedying the defect, including surface shipping costs in the United States, will be borne by us. (You must bear the expense of shipping the product between any foreign country and the port of entry in the United States including the return shipment, and all taxes, duties, and other customs fees for such foreign shipments.)

HOW TO OBTAIN WARRANTY SERVICE

You must notify us of your need for warranty service within the warranty period. All components must be shipped in a factory pack, which, if needed, may be obtained from us free of charge. Corrective action will be taken within a reasonable time of the date of receipt of the defective product by us or our authorized service center. If the repairs made by us or our authorized service center are not satisfactory, notify us or our authorized service center immediately.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

YOU ARE NOT ENTITLED TO RECOVER FROM US ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE NEW CROWN PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this Crown Warranty. This Crown Warranty is not extended by the length of time which you are deprived of the use of the new Crown product. Repairs and replacement parts provided under the terms of this Crown Warranty shall carry only the unexpired portion of this Crown Warranty.

DESIGN CHANGES

We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER

THIS CROWN WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. No action to enforce this Crown Warranty shall be commenced after expiration of the warranty period.

THIS STATEMENT OF WARRANTY SUPERSEDES ANY OTHERS CONTAINED IN THIS MANUAL FOR CROWN PRODUCTS. 9/07

9 Warranty (continued)

WORLDWIDE EXCEPT USA & CANADA



SUMMARY OF WARRANTY

Crown International, 1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A. warrants to you, the ORIGINAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW Crown1 product, for a period of three (3) years from the date of purchase by the original purchaser (the "warranty period") that the new Crown product is free of defects in materials and workmanship, and we further warrant the new Crown product regardless of the reason for failure, except as excluded in this Warranty.

Warranty is only valid within the country in which the product is purchased.

1 Note: If your unit bears the name "Amcron," please substitute it for the name "Crown" in this warranty.

ITEMS EXCLUDED FROM THIS CROWN-WARRANTY

This Crown Warranty is in effect only for failure of a new Crown product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts. This Crown Warranty also does not extend to the new Crown product if the serial number has been defaced, altered, or removed.

WHAT THE WARRANTOR WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement, or refund. We may not elect refund unless you agree, or unless we are unable to provide replacement, and repair is not practical or cannot be timely made. If a refund is elected, then you must make the defective or malfunctioning product available to us free and clear of all liens or other encumbrances. The refund will be equal to the actual purchase price, not including interest, insurance, closing costs, and other finance charges less a reasonable depreciation on the product from the date of original purchase. Warranty work can only be performed at our authorized service centers. We will remedy the defect and ship the product from the service center within a reasonable time after receipt of the defective product at our authorized service center.

HOW TO OBTAIN WARRANTY SERVICE

You must notify your local Crown importer of your need for warranty service within the warranty period. All components must be shipped in the original box. Corrective action will be taken within a reasonable time of the date of receipt of the defective product by our authorized service center. If the repairs made by our authorized service center are not satisfactory, notify our authorized service center immediately.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

YOU ARE NOT ENTITLED TO RECOVER FROM US ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE NEW CROWN PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT.

WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this Crown Warranty. This Crown Warranty is not extended by the length of time which you are deprived of the use of the new Crown product. Repairs and replacement parts provided under the terms of this Crown Warranty shall carry only the unexpired portion of this Crown Warranty.

DESIGN CHANGES

We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER

No action to enforce this Crown Warranty shall be commenced after expiration of the warranty period.

THIS STATEMENT OF WARRANTY SUPERSEDES ANY OTHERS CONTAINED IN THIS MANUAL FOR CROWN PRODUCTS. 9/07

9 保修



美国和加拿大

保修概述

Crown国际有限公司，1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A.，为您提供保修。Crown新产品的最先购买者和后续的用户，可以自原始购买日期起在为期3年的期限内（“保修期限”）对因Crown新产品的材料和工艺而引起的问题进行免费维修。我们进一步保证，除保障条款中提及的例外情况外，将不考虑构成故障的原因并进行维修。

Crown产品的保修服务及条款只适用于销售该产品的国家。

CROWN保修条款以外的情况

此保修条款仅对新产品在保修期内出现的故障有效。保修不能涵盖的情况包括，由于故意错误使用、意外、疏忽引起的产品受损或在任意保险合同下涵盖的损失。如果产品序列号受损、变更或改动，新产品所具有的Crown保险条款也将无效。

保修方需要做的事情

不考虑故障原因的情况下（例外情况除外），我们将会通过维修、更换或退款的方式对故障采取补救措施。当我们不能对设备进行更换，而且无法执行修复或及时修复时，我们才会选取退款方式。如果选择退款，您需要将故障或问题产品免费提供给我们并不计入任何抵押利息。退款等同于实际产品的价格，不包括利息、保险、手续费和其它费用，并减去自购买之日起产品折旧费。保修只能由经过我们授权的服务中心或在工厂完成。而某些产品的保修只能在我们的工厂进行。在授权服务中心或我们的工厂收到故障产品后，我们将在合理的时间内，在服务中心或我们的工厂对运来的故障产品及时采取补救措施。在维修时产生的所有费用，包括美国境内陆上运输成本将由我们承担。（您必须承担由外国运到美国港口的运输费用，其中包括返回运费和所有税款、关税和其它针对国外货品的进口关税。）

如何得到保修服务

您必须在保修期内向我们通告保修服务的需求。所有的元器件必须放置在工厂包装箱中进行运输，如果有需要，您可以从我们这里免费得到包装箱。收到故障产品后，我们或我们授权的服务中心将在合理的时间段内及时进行维修。如果维修的结果不令人满意，请立即通知我们或我们授权的服务中心。

不承诺附带和引起的损坏

因Crown新产品问题而引起的附带损坏，不在保修范围内。这其中包括对某一其它产品或某些其他产品引起的损坏。一些州不允许排除附带或引起损坏的保修。因此，以上的限制或例外情况可能不适用于您。

保修变更

Crown没有授权任何人对保修条款进行扩大、变更或修改。这份保修条款不会因您不使用产品而把这段时间顺应延长。在这份Crown保修条款下，维修和部件更换只能在Crown保修期未到时执行。

设计变更

我们保留在未预先通知时便进行产品设计更改的权利，不负责以前生产的产品之设计变更。

对购买人的法定赔偿

Crown保修给予您具体的法定权利。由于州与州之间存在差异，您也许可以获得其它权利。在保修期结束之后，不能执行保修条款规定的操作。

用于代替包含在Crown产品手册的任何保修声明。 12/01

9 保修（接上一页）



除美国和加拿大之外的世界其它地区

保修概述

Crown国际有限公司，1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A.，为您提供保修，Crown新产品的原始购买者和后续的用户，可以自原始购买日期起在为期3年的期限内（“保修期限”）对因Crown新产品的材料和工艺而引起的问题进行免费维修。我们进一步保证，在不考虑故障原因的情况下，进行维修。保障条款中的例外情况除外。

Crown产品的保修服务及条款只适用于销售该产品的国家。

1注意：如果您的产品上标有“Amcron”名称，在这份保修中，请用名称“Crown”替换。

CROWN保修条款以外的情况

此保修条款仅对产品保修期内出现的故障有效。保修不能涵盖的情况包括，由于故意误用、意外、疏忽引起的产品受损或在任意保险合同下涵盖的损失。如果产品序列号受损、变更或改动，新产品所具有的Crown保险条款也将无效。

保修方需要做的事情

不考虑故障原因的情况下（例外情况除外），我们将会通过维修、更换或退款的方式对故障采取补救措施。当不能对设备进行更换，而且无法执行修复或及时修复，我们才会选取退款方式。如果选择退款，您需要将故障或问题产品免费提供给我们并不计入任何抵押利息。退款等同于实际产品的价格，不包括利息、保险、手续费和其它费用，并减去自购买之日起产品折旧费。保修只能由经过我们授权的服务中心进行维修。我们将在合理的时间内，在服务中心对运来的故障产品及时采取补救措施。

如何得到保修服务

您必须在保修期内向您当地的Crown进口商通告保修服务的需求。所有的元器件必须放置在原始包装箱中进行运输，如果需要您可以从我们这里免费得到包装箱。收到故障产品我们或我们授权的服务中心将在合理的时间段内及时进行维修。如果维修的结果不令人满意，请立即通知我们或我们授权的服务中心。

不承诺附带和引起的损坏

因Crown新产品问题而引起的附带损坏，不在保修范围内。这其中包括对某一其它产品或某些其他产品引起的损坏。

保修变更

Crown没有授权任何人对保修条款进行扩大、变更或修改。这份保修条款不会因您不使用产品而把这段时间顺应延长。在这份Crown保修条款下，维修和部件更换只能在Crown保修期到到前执行。

设计变更

我们保留在未预先通知时便进行产品设计更改的权利，不负责以前生产的产品之设计变更。

对购买人的法定赔偿

在保修期结束之后，不能执行保修条款规定的操作。

用于代替包含在Crown产品手册的任何保修声明。 9/07

PRODUCT REGISTRATION

Crown Audio, Inc.
1718 W. Mishawaka Rd.
Elkhart, IN 46517-9439
Phone: 574-294-8000
Fax: 574-294-8329
www.crownaudio.com

Online registration is also available at http://crownweb.crownintl.com/webregistration.

Warranty is only valid within the country in which the product is purchased.

When this form is used to register your product, it may be mailed or faxed.

Crown Audio, Inc.
1718 W Mishawaka Rd
Elkhart IN 46517

Fax: 574-294-8329

Please note that some information is required. Incomplete registrations will not be processed. * Indicates required information.

CUT ON THIS LINE

OWNER'S INFORMATION - PLEASE PRINT

* First name: _____ Middle initial: _____ * Last name: _____
Company: _____
* Mailing address: _____
* City: _____ * State: _____ * Zip Code: _____
* Country: _____ E-mail address: _____
* Phone # (include area code): _____ Fax #: _____

PRODUCT INFORMATION

*** MODEL** e.g. CXM2000	*** SERIAL #** e.g. 0000001017	* **PURCHASE DATE** mo/day/yr
_____	_____	_____/_____/_____
_____	_____	_____/_____/_____
_____	_____	_____/_____/_____
_____	_____	_____/_____/_____

Product purchased from: *(Business/Individual) _____ Country: _____
Comments: _____
_____
_____

产品注册

Crown Audio有限公司
1718 W. Mishawaka Rd.
Elkhart, IN 46517-9439
电话: 574-294-8000
传真: 574-294-8329
www.crownaudio.com

产品也可以在网上登记，网址为：http://crownweb.crownintl.com/webregistration。

保修只在购买产品时所在国家内有效。

如果此表格用于为您的产品登记，则需要将其邮寄或传真至如下地址：

Crown Audio, Inc.
1718 W Mishawaka Rd
Elkhart IN 46517

传真：574-294-8329

请注意，有些信息是必填项，未填写完全的登记表将不被处理。带*的项为必填项。

所有人信息 – 请打印

* 您的姓名：_____
公司名称：_____
* 邮寄地址: _____
* 城市：_____* 省: _____* 邮编：_____
* 国家：_____ 电子邮件地址: _____
* 电话号码（包括区号）：_____ 传真号码：_____

产品信息

* 型号（如CXM2000）	* 序列号（如0000001017）	* 购买日期（月/日/年）
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

* 产品购买自（公司/个人）：_____ 国家：_____
备注：_____
_____
_____

请沿此线裁剪

Crown Audio Factory Service Information

Shipping Address: Crown Audio Factory Service, 1718 W. Mishawaka Rd., Elkhart, IN 46517

PLEASE PRINT CLEARLY

SRA #: _____(If sending product to Crown factory service.) Model: _____ Serial Number: _____ Purchase Date: _____

PRODUCT RETURN INFORMATION

Individual or Business Name: _____

Phone #: _____ Fax #: _____ E-Mail: _____

Street Address (please, no P.O. Boxes): _____

City: _____ State/Prov: _____ Postal Code: _____ Country: _____

Nature of problem: _____

_____

_____

Other equipment in your system: _____

If warranty is expired, please provide method of payment. Proof of purchase may be required to validate warranty.

PAYMENT OPTIONS

☐ I have open account payment terms. Purchase order required. PO#: _____ ☐ COD

☐ Credit Card (Information below is required; however if you do not want to provide this information at this time, we will contact you when your unit is repaired for the information.)

Credit card information:

Type of credit card: ☐ MasterCard ☐ Visa ☐ American Express ☐ Discover

Type of credit card account: ☐ Personal/Consumer ☐ Business/Corporate

Card # _____ Exp. date: _____ * Card ID #: _____

* Card ID # is located on the back of the card following the credit card #, in the signature area. On American Express, it may be located on the front of the card. This number is required to process the charge to your account. If you do not want to provide it at this time, we will call you to obtain this number when the repair of your unit is complete.

Name on credit card: _____

Billing address of credit card: _____

_____

_____

Crown工厂服务信息

运送地址：Crown Factory Service, 1718 W. Mishawaka Rd., Elkhart, IN 46517

请进行清晰打印

SRA 编号：_____（如果将产品送到 Crown 工厂服务部） 型号：_____ 序列号：_____ 购买日期：_____

产品返回信息

个人或公司名称：_____

电话号码：_____ 传真号码：_____ 电子邮件地址：_____

街道地址（非邮政信箱）：_____

城市：_____ 州/省：_____ 邮政编码：_____ 国家：_____

问题描述：_____

_____

_____

系统上的其它设备：_____

如果保修过期，请提供付款方式。另需要提供购买凭证，用于确认保修有效。

付款选择

☐ 我已经为付款开户，并提供购物单，购物单编号：_____ ☐ COD

☐ 信用卡（需要填写如下信息，如果您不想在此处提供这些信息，我们会在维修您的设备时向您索取这些信息）。

信用卡信息：

信用卡类型： ☐ MasterCard ☐ Visa ☐ America Express ☐ Discover

信用卡帐户类型： ☐ 个人/消费者 ☐ 商业/企业

卡号：_____ 有效截止日期：_____ *卡身份编号：_____

*卡身份编号位于卡的背面，在信用卡编号之后，在签名处。在美国运通卡上，它位于信用卡的正面，需要对编号进行处理，从而对帐户进行操作。如果您不想在此处提供这一号码，我们会在维修您的设备时向您索取这些信息。

信用卡上的姓名：_____

信用卡账单接收的地址：_____


crown
by HARMAN