CMA Twelve User Manual

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About CMA Twelve

Congratulations to you for being the owner of Questyle Audio CMA Twelve DAC/Headphone Amplifier.

CMA Twelve is the new flagship DAC/Headphone Amplifier of Questyle Audio. It inherits Questyle's classic desktop design style and marks the anniversary of the revolutionary Current Mode Amplification technology invented 12 years ago.

CMA Twelve adopts Questyle's core patented technologies of Current Mode Amplification, True DSD and 3X Clock Asynchronous Transmission, which allows the CMA Twelve to have outstanding performance from its DAC and pre-amplifier. Together with the DAC chip AK4490, CMA Twelve processes DSD signals without any PCM converting, providing the original DSD signal processing. The pre-amp out is user switchable between Fixed and Adjustable mode to match it with power amplifiers or active speakers.

CMA Twelve supports 4-PIN balanced output. It is designed with four groups of Current Mode amplifiers, exhibiting forceful driving power and an ultra-low distortion level of a mere 0.0005%. Plus the high-performance BIAS Control System, it will bring you an exceptional listening experience. CMA Twelve is Questyle's first device to feature the 4.4mm jack and Questyle is committed to continue with this trend.

In addition to S/PDIF, Optical and USB inputs, CMA Twelve supports professional interfaces of AES and XLR that are used in professional recording studios, and the live recordings can be monitored in real time via its 6.5mm headphone output. It is user switchable between Studio and Standard mode. In the Studio mode, the power level will change from 14dBu up to 20dBu instantly, matching it with studio-level professional equipment.

To avoid resonance, CMA Twelve chassis is made of 10mm-thick aircraft-grade Aluminum 6063 with high precision machining technique of 0.02mm. Especially the "mutual-bit" structure, silicone material and pure aluminum help to reduce resonance to a lowest level.

There are two versions of CMA Twelve, the first is the CMA Twelve Standard, the other being the CMA Twelve Master. The CMA Twelve Master has a "MASTER" laser marking, and it features the ROGERS Ceramic PCB and selected components to ensure the ultimate performance on sound quality and specifications.

In the Box

CMA Twelve 1pc Power Cord 1pc Remote Control 1pc CMA Twelve User Manual1pcCMA Twelve Test Report1pcCMA Twelve Driver CD1pc

Front View



① Power switch

2 Power indicator: it flashes quickly with orange light to show the system is starting and stays the orange light on to show the system has successfully started. It flashes slowly to show the system is in mute. If the indicator flashes quickly with red light, it means the system is in malfunction and you need to switch off the CMA Twelve, unplug your headphone and restart the CMA Twelve. If the problem is not solved, please contact your dealer or the After-Sales Support.

- ③ Source indicators: USB, OPT, S/PDIF, AES/EBU and 5G Wireless signals
- ④ Sample rate indicators
- 5 Source switch
- 6 Function switch between Headphone Amplifier and Pre-amplifier mode
- ⑦ Function indicators of Headphone Amplifier and Pre-amplifier (DAC) mode
- ⑧ BIAS Control switch
- 9 Indicators of High BIAS and Standard BIAS mode
- 10 Remote Control signal receiving zone
- 11 4.4mm balanced headphone output
- 12 6.35mm headphone output
- 13 4-PIN balanced headphone output
- 14 Volume control

Rear View



- ① OPT input
- ② USB type B input
- ③ AES/EBU input
- ④ S/PDIF input
- 5 S/PDIF output
- 6 Pre-amp output switch between Studio and Standard mode
- Pre-amp output volume switch between Fixed and Adjustable. When you switch it to Fixed, the output will be at max level and the volume is unadjustable.
- 8 Pre-amp right channel balanced output
- 9 Pre-amp left channel unbalanced output
- 1 Pre-amp right channel unbalanced output
- 11 Pre-amp left channel balanced output
- 12 5G Wireless Pairing switch

13 Antenna housing. In order to get clear signals, please DO NOT use metal or other shielding materials to cover this part.

14 220V/110V voltage switch (Please make sure the indicated voltage is in accordance with the local voltage)

15 AC power supply

Bottom View



Headphone Amplifier Gain Control switch: the default setting is "Standard" mode. When you use IEMs, please set it to "Low" mode. Make sure the four switches are at the same mode setting.

Remote Control



- 1. Mute
- 2. Source selection backward
- 3. Source selection forward
- 4. S/PDIF input signals
- 5. OPT input signals
- 6. Volume down
- 7. Volume up

Note: this is an all-in-one remote for Questyle products. When you pair the remote with CMA Twelve, only some of the buttons on the remote are available.

How to Match with CMA Twelve

1. Digital Input

CMA Twelve has OPT, S/PDIF, AES/EBU and USB inputs. Digital audio signals from your PC, music server, CD or Blu-ray can be sent to CMA Twelve (CMA Twelve supports USB Audio Class 2.0 standard driver). The core patented technologies of Current Mode Amplification, True DSD and 3X Clock Asynchronous Transmission allow the CMA Twelve to have outstanding performance from its DAC and pre-amplifier.



Note: you don't have to install a USB driver if your music player is Linux system supporting UAC 2.0.

2. Used as a DAC/Headphone Amplifier

CMA Twelve has a 6.35mm headphone jack, a 4-PIN balanced headphone jack and a 4.4mm balanced headphone jack. When you switch the "Function" to HP AMP (Headphone Amplifier) mode, the CMA Twelve can be used as a DAC/Headphone Amplifier and it will easily match with different headphones.

ヘ飛110-1710



Note:

- ① Headphone jacks on the front panel include a 6.35mm headphone jack, a 4-PIN balanced headphone jack and a 4.4mm balanced headphone jack. You are NOT allowed to plug in all of the three jacks at the same time. With the 4-PIN balanced headphone jack plugged in, the other two jacks are NOT allowed to be used.
- ② CMA Twelve has DC output protection which will be enabled to cut off the output automatically and protect your headphones if a malfunction or error is found.
- ③ CMA Twelve has Headphone Amplifier Gain Control switch. The default setting of the Gain Control is "Standard" mode. When you use IEMs, please set it to "Low" mode.

3. Used as a Pre-amplifier

CMA Twelve can be used as a Pre-amplifier only and drive various active speakers.

- Switch the "Function" to DAC mode.
- When you switch the Pre-amp output to Standard mode, the max output level will be 14dBu. When you switch it to Studio mode, the max output level will be 20dBu.
- The Pre-amp output volume can be switched to Fixed or Adjustable. When you switch it to Fixed, the output will be at max level and the volume is unadjustable.

chart: CMA Twelve+ Active Speaker

5GHz Wireless Mode

CMA Twelve can be matched with Questyle Super Hub SHB2. They will communicate with each other via 5G Wireless transmission and bring you a wonderful music listening experience.

chart: SHB2+CMA Twelve

• Switch the "Source" to 5G Wireless.

• Press and hold the Pairing switch and the 5G Wireless indicator will flash quickly, then press the pairing button on the transmitter (SHB2). CMA Twelve and the transmitter are successfully paired when the indicator stays light on. (Once the pairing is done, the 5G Wireless will start working every time the 5G Wireless mode is on, so you don't have to do the pairing every time.) When the indicator is red, it indicates signals of high sample rate. When it is orange light, it indicates signals of general sample rate.

• You can match the CMA Twelve with headphones, speakers or other output devices depending on your needs.

PC System Requirements

1) Operation System

CMA Twelve's driver and hardware support Win XP/Vista/Win7/Win8/Win8.1/Win10. For Apple Mac OS, later versions than the 10.5.7 are well matched without installing any driver.

2) Media Player

CMA Twelve is not limited to any special media player. Any PC compatible player (including video players) is well matched.

3) File Format

File format is up to the media player on your PC. CMA Twelve can decode any file format that the media player supports.

4) Requirements for PC Configuration

At least one USB port is required. An acceptable USB2.0 high-speed cable of type A-to-B plug. We suggest using the high-quality USB cable to ensure the stability and reliability of data transmission and guarantee the best performance of CMA Twelve.

Install CMA Twelve Driver on Windows OS

Your CMA Twelve can be recognized by PC after installing the CMA Twelve Driver on Windows OS. We take Win7 64bit OS for an example to show the Driver installation.

1) Connect your CMA Twelve to its power supply and switch it on;

2) Connect your CMA Twelve to PC with a USB cable;

3) Put the provided CMA Twelve Driver disc into your PC and open the folder labeled "CMA Twelve Driver/For Windows 7, 8, 8.1 and 10/" and then



double click "Setup.exe"

4) Then follow the steps below:



Click "Next"

Setup	
Choose Install Location Choose the folder in which to install Questyle Hi-end USB Audio v3.30.0.	P
Setup will install Questyle Hi-end USB Audio v3.30.0 in the following folder. different folder, dick Browse and select another folder. Click Install to start	To install in a the installation.
Destination Folder C:\Program Files\Questyle\Questyle_USB_Audio_Driver	Browse
Space required: 2.6MB Space available: 16.3GB	
< Back Install	Cancel

Click "Install" (Default install location is C drive)

Setup	
Installing Please wait while Questyle Hi-end USB Audio v3.30.0 is being installed.	
Waiting Preparation. Preparing installation. This may take some time to complete. Please wait Execute: 'E:\CMA600i\CMA600i DRIVER\win7+\release\QuestyleAud Waiting	ioCplApp.exe'
< Back Nex	t > Cancel

Installation will take 3 or 5 minutes



Installation is completed, click "Next"



Click "Finish" to exit the installation

- 5) Restart your PC and the CMA Twelve Driver is finished installation;
- 6) Installation on Win XP, Vista is similar to the above.

Core Audio Stream Introduction

Core Audio Stream has formats of ASIO, KS and WASAPI, all of which can be supported perfectly by CMA Twelve. Besides, CMA Twelve supports DSD format.

According to general audio processing procedures of PC, all the sound from applications and systems is processed by SRC, going through the lengthy system processing and hardware layer transmission, and then output to the external device. The output data are totally different after all those procedures. To output the pure, original and "bit-perfect" data, we must open a high-speed and dedicated channel for audio device, which is the core audio stream technology.

CMA Twelve supports ASIO and KS on Win XP systems, and supports ASIO and WASAPI on Vista, Win7, Win8, Win10 systems. For example, when you enable WASAPI + Exclusive Mode between CMA Twelve and player software (like JRiver), you can't control the volume through system controller, the sound from the system or any other application will not be heard at the CMA Twelve output, which is because the system has opened the Core Audio Stream channel for CMA Twelve and the audio data directly get to the DAC of CMA Twelve with high-speed.

Setup Core Audio Stream on JRiver Media Center

We recommend using Jriver Media Center 20 for getting the best performance.

JRiver Media Center is a fully functional media management and playback software. It can manage your music in groups and can stream music from the Internet. It also can be used for MP3 or DVD burning. JRiver can support kinds of audio files including MP3, MusicEx, WAV, OGG, RealAudio, RealVideo, AVI, QuickTime etc.

Let's take JRiver Media Center player 20 on Win7 32bit OS for an example to explain how to setup WASAPI.

I DOWI	ivau e	anu mstat	1			
1) Go	to	JRiver	website	(http://www.jriver.com/download.html),	and	click
	N	INDOWS	DOWNLOA	AD to download JRiver Media Ce	enter 20.	0.131;

2) Install JRiver Media Center 20.

II Import Songs

I Download and Install

1) Open "JRiver Media Center", click "Tools"-"Import" and select "Configure Auto Import", and then click "Next";

这件编辑 视图 播放調	器 工具 整助	
000	夏 昱入	
	豆 茲取图像	
•	翻录光盘	
正在播放	刻录光盘	
音乐	<u>高</u> 级工具	•
→ 🚺 专辑	媒体转到	•
▶ 🗾 艺术家	媒体工具	•
▶ 🛃 文件	封面	•
🕨 🇾 流派	位置	•
 ♪ 视图 ♪ 最近专辑 	链接	•
J 3D 专辑	语言	F
▶ 🔀 已连接的媒体	选项	Ctrl+O
图片	》 试	音精洗96K
2042	N	



2) Click "Add"-"Browse", select the folder that contains songs, and then click "OK"-"Finish".

导入媒体	
文件夹	
添加您想要显示内容的文件夹。	
D:\	加入
	除土
	PK-ZA
	编辑
任务	
选择自动导入应执行的任何其他任务。	
选择自动导入应执行的任何其他任务。 ① 电影和电视信息	<u>^</u>
选择自动导入应执行的任何其他任务。	ite î
选择自动导入应执行的任何其他任务。 ☑ 电影和电视信息 □ 对音频进行分析,获取封面,以及采用基于文件夹的标签时,写入文件标 □ 分析视频文件的音频	ش
 选择自动导入应执行的任何其他任务。 ✓ 电影和电视信息 □ 对音频进行分析,获取封面,以及采用基于文件夹的标签时,写入文件标 □ 分析视频文件的音频 □ 分析音频文件的音频 	×
 选择自动导入应执行的任何其他任务。 ✓ 电影和电视信息 □ 对音频进行分析,获取封面,以及采用基于文件夹的标签时,写入文件标 □ 分析视频文件的音频 □ 分析音频文件的音频 ☑ 分析音频文件的音频 ☑ 忽略曾经从媒体库移除的文件 	iα I
 选择自动导入应执行的任何其他任务。 中影和电视信息 对音频进行分析,获取封面,以及采用基于文件夹的标签时,写入文件标 分析视频文件的音频 分析音频文件的音频 分析音频文件的音频 忽略曾经从媒体库移除的文件 获取封面 	œ Î



III JRiver Output Setup

1) Click "Tools" and select "Options";



2) Select "Audio Device" under "Options", and click "Questyle ASIO Driver[ASIO]" and select "Default Audio Device", and then click "OK".

	选项	
▶音乐	需要配置的区域: 播放器	*
🔁 光盘刻录	▼ 音频设备	-
💽 CD, DVD & BD	♥ Questyle ASIO Driver [ASIO]	
🔁 编码选项	设备设置	
文件位置	▼ 播放设置	
🛠 文件类型	DSP和输出类型	
☑ 综合选项	❤ 数位流: Yes (DSD)	
₹ 便携设备	❤ 播放预缓冲: 6秒 (推荐)	
1 图片	✓ 在启动播放时为使硬件同步等待(静音):无	
☆ 自动导入	□ 使用内存描成功能则不是直接从磁盘读取描放(用于所有区域)	
➡ 媒体网络	★ 含幼扣施	
◎ 播客	 ✓ 切换音轨: 标准 (有间隔) - 0.6s 	
2 遥控	☑ 不播放无声部分 (开头和结尾)	
[] 联网服务	☑ 无间隔播放专辑音轨	
し。自动洗项	▼ 停止,寻道与跳过	
日由初	❤ 寻道: 光滑 (中)	
	♥ 停止: 淡出 (快)	
	★ 暫停: 淡入 (快)	
	跳转行为: 前进 30 秒 , 后退 10 秒	
THERE	注解: 当播放停止后更改生效	
理委你需要的内容	福江 取当	#PRh
THE REPORT OF THE PROPERTY OF	MRM/ -52/13	TP AU

True DSD (Direct Stream Digital) Technology (China Intellectual Property Office Patent No. 201520211945.X)

Nothing is better than the true. The True DSD technology is one of the core patented technologies of Questyle Audio. It processes DSD signals without any PCM converting and provides True DSD, which is fundamentally different from DoP and Native DSD.

When the system processes DSD signals, hardware mode switches to the True DSD channel. In this case, options for digital filter and digital volume control fail, strictly following the process of SACD playback.



Setup DSD on JRiver Media Center

- 1) Connect your CMA Twelve to its power supply and switch it on;
- 2) Connect your CMA Twelve to PC with a USB cable;
- 3) Open JRiver Media Center, click "Tools" and then select "Options";
- 4) Select "Questyle ASIO Driver[ASIO]" under "Audio Device";



5) Select "Device Settings" under "Audio Device" and click "Open Driver Control Panel" under the ASIO, then select "Format"-"2Channels,24Bits"; select "Buffer Settings"-"Safe", "Auto"; then close and click "OK".

	选	页	
♪ 音乐	需要配置的区域: 播放器		4
🔯 图片 🔛 视频	▼ 音频设备 ◆ Questyle ASIO Driver [ASIO] … 设备设置		i
	Questyle ASI	D Driver [ASIO]	×
设备 声道紙端: 0 通道紙 (0, 2, T Questyle Audic Status Format Output 2 channels, 24	消決定哪些輸出设备上使用的选择。尝试不同的值 4、等等),直到音频被路由到所需的了 o Control Panel Buffer Settings Volume Info bits	 第中 500 室秒 ④ 使用较大硬件缓冲区(推荐使用以防止爆音) 注解:增加缓冲能使播放更流畅,但也会增加滞后部 注射、增加缓冲能使播放更流畅,但也会增加滞后部 注射、增加缓冲能使播放更流畅,但也会增加滞后部 注射面板 Y <	前(自动调整缓冲)
22			帮助

	选	顷	
▶ 音乐	需要配置的区域: 播放器		•
[2] 图片	▼ 音频设备 ❤ Questyle ASIO Driver [ASIO]		1
	设备设置		
	Questyle ASI	0 Drive	er [ASIO]
设备 声道抵消: 0		缓) 50(冲 0 毫秒 🗸
通道抵消决定明 (0、2、4、等等 T Questyle Audio Contro	那些输出设备上使用的选择。尝试不同的值 事).直到音频被路由到所需的了	☑ (注解	使用较大硬件缓冲区(推荐使用以防止爆音) & 增加缓冲能使播放更流畅,但也会增加滞后时间(自动调整缓冲 。 音量,DSP,等等,生效)
Status Format Buffer USB Streaming Mode Safe	Settings Volume Info	•	控制面板 备仅使用最高的 24 - bits (Lynx 等)。
ASIO Buffer Size			D码流伪装在DoP格式中
Auto		•	确认取消
			确认 取消 帮助

6) Click "DSP & output format" under "Settings". Make sure nothing on the left row is ticked. (To wit: without any processing to DSD data, ensuring original sound.)

	选坝		
题配置的区域: 播放器			~
音频设备		_	
 ✓ Questyle ASIO Driver [AS … 设备设置… 満放设置 … DSP和輸出类型… 	510]		
	DSP设置		
采样选项 未启用 (使用左侧复选框)			
可以任何格式的音频输出。你 输出编码 (更多的信息)	鴪听到模拟 5.1 环绕 32 bit / 192 kHz 的CD≹	音频 多声道 声道 (更	和高采样率的高级输出设置 多的信息)
-			
九	*	声迴:	源(输入)声追数
采样率 (更多的信息)		混合:	JRSS ^{mi} 混合(推荐)
点击输出列选择一个采样型 所有。	赵对每个输入采样率。单击鼠标右键来一次设置		□ 对立体声源,混合成。
输入	输出		
不到 44,100 Hz	无变化		☑ 检测环绕立体声源(环)
44,100 Hz	无变化	/10.≠=.101 /	軍々が作自い
48,000 Hz	无变化	INCEINS (
88,200 Hz	无变化	当源(3)	前人)有发有低音炮(如立(言道时,选择此顶;
96,000 Hz	无变化		8月1日时,2日年16月6日
176,400 Hz	无变化	JF	ISS 低音炮 (60 Hz 低通過
	 電量的区域: 播放器 音频设备 ◆ Questyle ASIO Driver [AS] … 设备设置 満放设置 … DSP和輸出类型 第4日(使用左侧复选框) 可以任何格式的音频输出,你 輸出编码(更多的信息) 元 来样率(更多的信息) 点击输出列选择一个采样型所有。 「新入 不到 44,100 Hz 48,000 Hz 88,200 Hz 96,000 Hz 176,400 Hz 100,000 Hz 	福置御区域: 播放器 音频设备 ◆ Questyle ASIO Driver [ASIO] … 设备设置… 猫放设置 … DSP和輸出类型… DSP印輸出类型… DSP设置 采样选项 末启用 (使用左侧复选框) 可以任何格式的音频输出,你能听到模拟 5.1 环绕 32 bit / 192 kHz 的CDI 输出编码 (更多的信息) 无 采样率 (更多的信息) 点击输出列选择一个采样率对每个输入采样率。单击鼠标右键来一次设置所有。 新有。 繁 样本 (更多的信息) 点击输出列选择一个采样率对每个输入采样率。单击鼠标右键来一次设置所有。 新名、 新名、 新台、 <p< td=""><td>125% <p< td=""></p<></td></p<>	125% <p< td=""></p<>

	选顶	
▶ 音乐	需要配置的区域:	~
 ○ 图片 ₩ 视频 	 ▼ 音频设备 ◆ Questyle ASIO Driver [ASIO] … 设备设置 ▼ 摘放设置 … DSP和输出类型 ◆ 教位流: 註省 (推荐) 	
	 ✓ < 註省(推荐) → HDMI □ ▷/PDIF □ □ □ □ □ □ □<td></td>	
搜索你需要的内容	确认取消	帮助

7) Select "Custom" under "Bitstreaming: Yes(DSD)"

8) Tick "DSD" and then click "OK".

	造填
 중 音乐 ③ 图片 ④ 视频 	 ◆ 音频输出 ◆ 輸出模式: ASIO ● 輸出模式设置 ◆ 播放设置 ② Dolby Digital (AC3) □ Dolby Digital Plus (E-AC3) □ Dolby TrueHD □ DTS □ DTS-HD ✓ DSD □ DSD over PCM (DoP) □ DoP 格式: □ DoP 1.0 (0xFA / 0x05) ▼
	确认 取消 ① 最大音量: 100 》 备用模式设置
搜索你需要的内容	注解: 当播放停止后更改生效

Save and exit. The setup is completed.

9) With a song playing, put the mouse pointer at where the arrow is pointing to view current input and output.

文件 编辑 视图 播放器 工具	帮助			
	REQUIEM - Confutatis (2L Audiophile Reference Recordings) 		٩ 1	夏索
()				
电视 个 在线音乐商店 # 2	● C 智能列表・ 工具 ● K 描放 DSP 工作室 回放选项	图像	Wiki Yo	ouTube 🗙
留谷 播放列表 ● 快速播放列表 ● 智能列表 ● 4星 或 5星	2 会優路名・直接 10 法由此处以湯 論入: 192kHz 24bit 2ch 憑格式 FLAC 处理: 不做任何变更			Î
 ■ 按日期的播客 ■ 本月导入 ■ 封面缺失 ■ 随机 100 首歌曲 	名称	七特率 4632 3944	文件类型 flac flac	日期 :
 □ 未最近播放 □ 小图像和视频 ▶ ▶ 最近正在播放 	ÄN: Vere Meininga (e GREGORIAN CHANT: Cru REQUIEM - Lacrymosa	3420 4586 4034	flac flac flac	
	REQUIEM - Confutatis	3755	flac	
Ctring Questate	GJELD: North Countr PLAGGE: Duels for 2 Soriage etter Gudu	3247 4787 3920	flac flac flac	
Beethoven - Norcheim - Bartók	BARTOK: Sonata for s 輸出: 192kHz 24bit 2ch 使用 Kernel Streaming (直连) VIVALDI: Recitative 点击这里了解更多关于音频路径 Sechs kleine klavier	4085 4991 4151	flac flac flac	
	🜠 HAYDN: String Quarte 👩 Engegårdkv 🕟 2L Audiophi 🕟 Classical 15 3:24	5082	flac	
and a start of the plan in the	🗾 IVES: Overture & Mar 💽 Kristiansa 💽 2L Audiophi 💽 Classical 16 3:31	3815	flac	
ENGER ADDIVIDUETTEN	BRLITIEN: Simple Symp O TrondheimS O 2L Audiophi O Classical 17 2:59	4859	flac	
ENGEGARDKVARIETTEN	SARUYULU: Urgelimpro D Kare Nords O ZL Audiophi O Liassical 18 4:58	3558	flac	
操作窗口 ^	Ammos van provi	5422	A.A. G.C.	, [*]
	REQUIEM - Confutatis (FLAC - 2:11 - 58.8 MB)			

Install Foobar2000

Foobar2000 is a free and multifunctional audio player as well as a powerful tool for audio processing.

I Download the Following Software and Plugins

- 1. Take Foobar2000 V1.3.9 for an example <u>http://www.foobar2000.org/download</u>
- 2. ASIO channel plugin http://www.foobar2000.org/components/view/foo_out_asio
- 3. WASAPI channel plugin (no need for higher versions than WIN7)
 - http://www.foobar2000.org/components/view/foo out wasapi
- 4. Core Audio Stream channel plugin (no need for WINDOWS XP) http://www.foobar2000.org/components/view/foo_out_ks
- 5. ASIO driver (take ASIOProxyInstall-0.8.4 for an example) http://sourceforge.net/projects/sacddecoder/files/foo_input_sacd/

You will get 5 files after the above download (as shown below):

			l	- 0 X
	oorbar2000 安装 说明 ▶		▼ 4 ₇	搜索 Foor 🔎
文件(F) 编辑(E)	查看(V) 工具(T) 帮助(H)			
组织 ▼ 📑 打き	开 共享 ▼ 新建文件夹		===	• 🔟 🔞
☆ 收藏夹	名称	修改日期	类型	大小
🚺 下载	😻 foobar2000_v1.3.9.exe	2016-02-01 16:56	应用程序	3,805 KB
■ 桌面	foo_out_asio.fb2k-component	2016-02-01 17:04	foobar2000.FB2	183 KB
圖 最近访问	📑 foo_out_ks.zip	2016-02-01 17:49	360压缩 ZIP 文件	77 KB
2012-1	📑 foo_input_sacd-0.8.4.zip	2016-02-01 18:21	360压缩 ZIP 文件	1,632 KB
🕜 已导入的	WASAPI.fb2k-component	2016-02-01 19:00	foobar2000.FB2	163 KB
🧊 库 ■ 计算机 🔻				
foobar2 应用程序	2000_v1.3.9.exe 修改日期: 2016-02-01 16:56 天小: 3.71 MB	创建日期: 2016	-02-01 19:19	

After the unzipping, you will see the following:

	Foorbar2000安装说明 ▶		- - - f - j	搜索 Foor 🔎
文件(F) 编辑(E)	查看(V) 工具(T) 帮助(H)			
组织 ▼ 包含到	刨库中 ▼ 共享 ▼ 新建文件夹		: :==	• 🔟 🔞
☆ 收藏夹	名称	修改日期	类型	大小
🚺 下载	🌗 filters	2016-02-01 19:59	文件夹	
📃 桌面	🌗 src	2016-02-01 19:59	文件夹	
🖫 最近访问	🚳 foo_out_ks.dll	2006-08-04 21:54	应用程序扩展	146 KB
2012-1 ≡	📄 readme.txt	2015-09-04 15:06	文本文档	7 KB
	📷 foo_input_sacd.fb2k-component	2015-09-04 15:58	foobar2000 Co	1,272 KB
	🕼 ASIOProxyInstall-0.8.3.exe	2015-09-04 16:02	应用程序	278 KB
- ±	😻 foobar2000_v1.3.9.exe	2016-02-01 16:56	应用程序	3,805 KB
	📷 foo_out_asio.fb2k-component	2016-02-01 17:04	foobar2000 Co	183 KB
	📑 foo_out_ks.zip	2016-02-01 17:49	360压缩 ZIP 文件	77 KB
▶️● 计算机	📑 foo_input_sacd-0.8.4.zip	2016-02-01 18:21	360压缩 ZIP 文件	1,632 KB
🏭 OS (C:)	📷 WASAPI.fb2k-component	2016-02-01 19:00	foobar2000 Co	163 KB
👝 DATA (👻				
11 ^5	村象			

II Install Foobar2000 V1.3.9

1. Double click

🕲 foobar2000_v1.3.9.exe

to install Foobar2000, and then click "Next".



2. Click "I Agree".

😻 foobar2000 v1.3.9 Setu	qu		
	License Agreement Please review the license terms	before installing fool	bar2000.
Press Page Down to see th	e rest of the agreement.		
foc	bar2000 audio pla	ver	<u> </u>
Copyright	© 2001-2015 Peter	Pawlowski	
Portions copy	right © 2005-2006 I	-lolger Sten	ger
Portions co	pyright © 2003-200	5 Gian-Carlo	5
	Pascutto		
Icons copyri	ght © 2007 Florian T	rendelenbu	irg
Icons and ins	taller scrint convrigh	t @ 2003-20	115 -
If you accept the terms of agreement to install fooba	the agreement, click I Agree to cor r2000.	ntinue. You must acc	ept the
NETCO			
1912 AS		I Agree	Cancel

3. Select "Standard installation".

4. Click "Next" to choose Foobar2000 install location. (Default install location is C drive)

😻 foobar2000 v1.3.9 S	etup	
THE REAL PROPERTY AND A DECEMBER OF A DECEMBER	Choose Install Type Choose standard install or portable install.	
Standard installa	tion	
Install foobar2000 f	or all users of this machine.	
Portable installat	ion	
In portable mode all information is writte	configuration data is stored in the application folde n to the registry. Does not support file association.	er and no
NSIS v2	< Back Next	> Cancel

5. Click "Next".

😻 foobar2000 v1.3.9 9	Setup	
Fire	Choose Install Location Choose the folder in which to ins	stall foobar 2000.
Setup will install foobar and select another fold	2000 in the following folder. To install i ler. Click Next to continue.	n a different folder, dick Browse
Destination Folder	:86)\foobar 2000	Browse
Space required: 10.6 N Space available: 16.1 (1B GB	
NDID VZ	< Back	Next > Cancel

6. Click "Install". (Default installation of all the components)

😻 foobar2000 v1.3.9 Setup	
FIEX	Choose Components Choose which features of foobar2000 you want to install.
Check the components you install. Click Install to start th	want to install and uncheck the components you don't want to ne installation.
Select the type of install:	Full
Or, select the optional components you wish to install:	;···· 😧 foobar 2000 ▷ · 🕲 Optional features ▷ · 🕲 Shortcut icons
	Description
Space required: 10.6MB	Position your mouse over a component to see its description,
NSIS v2	
	< Back Install Cancel

😻 foobar2000 v1.3.9 Se	etup	
FERR	Installing Please wait while foobar 2000 is	being installed.
Updating registry	-	
Extract: foo_unpack.d Extract: foo_freedb2.d Output folder: C:\Prog Create shortcut: C:\Us Output folder: C:\Prog Create shortcut: C:\Prog Delete file: C:\Program Extract: uninstall.exe Updating registry	ll all ram Files (x86)\foobar2000 ers\Public\Desktop\foobar2000.lnk ram Files (x86)\foobar2000 ogramData\Microsoft\Windows\Start ram Files (x86)\foobar2000 Files (x86)\foobar2000\installer.ini.l	: Menu\Programs\foobar2 bak
N5IS v2	< Back	Next > Cancel

7. Click "Finish" and run Foorbar2000.



III Install Plugins

1. Install plugins according to the following steps highlighted from 1 to 8.

🤤 foobar2000 v1.3.9		
File Edit View Playback Default Playi Artist/album	Library Help Album List Search Configure 2 / track artist	Dura
Opens the Media Library Prefere	ences page.	

Preferences: Components			8 ×
Components	Installed components:	Ri	ght-click a component for additional options.
⊳ Display	Name	Version	Module
 > Display Keyboard Shortcuts > Media Library Networking > Playback Shell Integration > Tools > Advanced 	Name Album List CD Audio Decoder Converter Default User Interface Equalizer File Operations foobar 2000 core Online Tagger ReplayGain Scanner Standard DSP Array Standard Input Array ZIP/GZIP/RAR Reader	Version 4.5 3.0 1.5 0.9.5 1.0 2.2.1 1.3.9 0.7 2.2.2 1.3.1 1.0 1.7.1	Module foo_albumlist foo_cdda foo_converter foo_dsp_eq foo_fleops Core foo_freedb2 foo_dsp_std foo_input_std foo_unpack foo_unpack
	Reset all Reset page		OK Cancel Apply

Preferences: Components			2 S
😔 Install Component			al options.
🚱 🗢 📕 🕨 Foorbar2	2000安装说明 🕨	▼ 4 搜索 Foorbar	2000安装说明 🔎
组织 ▼ 新建文件夹	找到解压后的。	3个文件选	₽- □ 0
☆ 收藏夹	^{名称} / / 5	▼ 修改日期	类型
📜 下载	鷆 filters	2016-02-01 19:59	文件夹
三 桌面	June Contraction of the Contract	2016-02-01 19:59	文件夹
🗐 最近访问的位置	i foo_nput_sacd.fb2k-component	2015-09-04 15:58	foobar2000 Co
1 2012-1-30 - 快持	📑 foo_ipput_sacd-0.8.4.zip	2016-02-01 18:21	360压缩 ZIP 文件
⑦ 已导入的图片和补	fog_out_asio.fb2k-component	2016-02-01 17:04	foobar2000 Co
	📑 🕫 o_out_ks.zip	2016-02-01 17:49	360压缩 ZIP 文件
<u>⇔</u> ≠	WASAPI.fb2k-component	2016-02-01 19:00	foobar2000 Co
₩ 计算机	٠		· · ·
文件名	(N): "foo_input_sacd.fb2k-component" "fo	o_ ▼ foobar2000 cc	omponents (fo ▼
		6 打开(0) ▼	取消
	Get more components Why are some components grayed out	? Install	. Copy report Get updates
	Reset all Reset page	ОК	Cancel Apply

(上图中的文字)Find the 3 unzipped files and select them.

Components	Installed components:	Rig	ht-click a component for additional o
Display	Name	Version	Module
Keyboard Shortcuts	Album List	4.5	foo albumlist
Media Library	CD Audio Decoder	3.0	foo cdda
Playback	Converter	1.5	foo_converter
Shell Integration	Default User Interface	0.9.5	foo_ui_std
Tools	Equalizer	1.0	foo_dsp_eq
Advanced	File Operations	2.2.1	foo_fileops
	foobar2000 core	1.3.9	Core
	Online Tagger	0.7	foo_freedb2
	ReplayGain Scanner	2.2.2	foo_rgscan
	Standard DSP Array	1.3.1	foo_dsp_std
	Standard Input Array	1.0	foo_input_std
	ZIP/GZIP/RAR Reader	1.7.1	foo_unpack
	(unknown - please apply changes to load) (unknown)	foo_input_sacd
	(unknown - please apply changes to load) (unknown)	foo_out_asio
	(unknown - please apply changes to load) (unknown)	foo_out_wasapi
	Get more components Why are some components grayed out?	Ir	Stall Copy report Get upo

Components	Installed components:	Ri	ight-click a component for additional o
Display	Name	Version	Module
Keyboard Shortcuts	Album List	4.5	foo albumlist
Media Library	CD Audio Decoder	3.0	foo cdda
Networking	Converter	1.5	foo converter
DSP Manager	Default User Interface	0.9.5	foo ui std
Output	Equalizer	1.0	foo dsp eq
Shell Integration	File Operations	2.2.1	foo fileops
Tools	foobar2000 core	1.3.9	Core
Advanced	Online Tagger	0.7	foo_freedb2
			_
	foobar2000 preferences Applying these changes requires foo	2.2.2 bar2000 to be resta	foo rascan
	foobar2000 preferences Applying these changes requires foo	2.2.2 bar2000 to be resta 8 通定	foo_rascan arted. Continue?
	foobar2000 preferences Applying these changes requires foo	2.2.2 bar2000 to be resta 8 通定	foo rascan erted. Continue?
	Applying these changes requires foo	2.2.2 bar2000 to be resta 8 通定	foo_rascan

2. Restart Foobar2000 and go to the install location to confirm that the three plugins highlighted in

the following figure are installed successfully. If so,	, you will s	see two	more	options	on t	the le	ft of
the interface. (as shown in the figure below)							

 Display Name Album List Album List ASIO support CD Audio Decoder Converter Default User Interface Equalizer File Operations foobar 2000 core Online Tagger Advanced DSD歌曲播放必须要 有这两个插件 Windows其他高速 直通通道 	Version 4.5 2.1.2 3.0 1.5 0.9.5 1.0 2.2.1 1.3.9	Module foo_albumlist foo_out_asio foo_cdda foo_converter foo_dsp_eq foo_dsp_eq foo_fileops
 Keyboard Shortcuts Media Library Networking Playback DSP Manager Output Mation Decoder Converter Default User Interface Equalizer File Operations foobar 2000 core Online Tagger Advanced DSD歌曲播放必须要 有这两个插件 Windows其他高速 直通通道 Album List Album List ASIO support CD Audio Decoder Converter Default User Interface Equalizer File Operations foobar 2000 core Online Tagger ReplayGain Scanner Standard DSP Array Standard Input Array Super Audio CD Decoder WASAPI output support ZIP/GZIP/RAR Reader 	4.5 2.1.2 3.0 1.5 0.9.5 1.0 2.2.1 1.3.9	foo_albumlist foo_out_asio foo_cdda foo_converter foo_ui_std foo_dsp_eq foo_fileops
 Media Library Metworking ASIO support ASIO support CD Audio Decoder Converter Default User Interface Equalizer File Operations foobar 2000 core Online Tagger Advanced DSD歌曲播放必须要 有这两个插件 Windows其他高速 直通通道 	2.1.2 3.0 1.5 0.9.5 1.0 2.2.1 1.3.9	foo_out_asio foo_cdda foo_converter foo_ui_std foo_dsp_eq foo_fileops
 Networking Playback DSP Manager Output Astio Shell Integration Tools Tagging freedb Tagger Advanced DSD歌曲播放必须要 有这两个插件 Windows其他高速 直通通道 Playback CD Audio Decoder Converter Default User Interface Equalizer File Operations foobar 2000 core Online Tagger ReplayGain Scanner Standard Input Array Super Audio CD Decoder WASAPI output support Imput Array 	3.0 1.5 0.9.5 1.0 2.2.1 1.3.9	foo_cdda foo_converter foo_ui_std foo_dsp_eq foo_fileops
 Playback DSP Manager Output ASIO Shell Integration Tools Facton Advanced Tagging Freedb Tagger Advanced DSD歌曲播放必须要 有这两个插件 Windows其他高速 直通通道 DSD Wanager Converter Default User Interface Equalizer File Operations foobar 2000 core Online Tagger ReplayGain Scanner Standard Input Array Standard Input Array 	1.5 0.9.5 1.0 2.2.1 1.3.9	foo_converter foo_ui_std foo_dsp_eq foo_fileops
→ Osp Manager → Output → Asto → Shell Integration → Tools → Tagging ↓ → freedb Tagger → Advanced Default User Interface Equalizer File Operations foobar 2000 core Online Tagger ReplayGain Scanner Standard DSP Array Standard Input Array Super Audio CD Decoder WASAPI output support ZIP/GZIP/RAR Reader	0.9.5 1.0 2.2.1 1.3.9	foo_ui_std foo_dsp_eq foo_fileops
▲ Output ▲ ASIO → ASIO → ASIO → Shell Integration ↑ Tools ↓ Tagging ↓ freedb Tagger Advanced OSD歌曲播放必须要 与这两个插件 Windows其他高速 直通通道	1.0 2.2.1 1.3.9	foo_dsp_eq foo_fileops
· Shell Integration · Shell Integration · Tools · Tagging · freedb Tagger · Advanced OSD歌曲播放必须要 与这两个插件 Windows其他高速 直通通道	2.2.1	foo_fileops
 Tools Tools foobar2000 core Online Tagger Advanced OSD歌曲播放必须要 与这两个插件 Windows其他高速 直通通道 	1.3.9	Too_neops
Image Image Image	1.000	Core
 Tagging freedb Tagger Advanced SD歌曲播放必须要 与这两个插件 Windows其他高速 直通通道 	0.7	foo freedb2
	2.2.2	foo_rascan
Advanced Sub-Advanced Sub-Advanced Standard Input Array Standard Input Array Suber Audio CD Decoder WASAPI output Support ZIP/GZIP/RAR Reader ZIP/GZIP/RAR Reader	131	foo dsp std
DSD歌曲播放必须要 有这两个插件 Windows其他高速 直通通道	1.0	foo_input_std
DSD歌曲播放必须要 有这两个插件 Windows其他高速 直通通道	0.8.4	too input sacd
有这两个插件 Windows其他高速 直通通道	3.2.3	foo out wasani
自这两个插件 Windows其他高速 直通通道	1.7.1	foo unpack
Windows其他高速 直通通道		
Windows其他高速 直通通道		
Windows具他高速 直通通道		
直通通道		
Get more components		
Why are some components grayed out?	1	install Copy report Get u

(上图中的文字)

These two plugins are needed for playing DSD files. Other high-speed channel on Windows

3. Install ASIO driver: double click Residence and a second secon

then install the three components one by one.

ASIO Proxy for foobar2000	Setup: Installation Op 💶 💷 💌		
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.			
Select components to install:	ASIOProxy (required)		
Space required: 484.0KB Cancel Nullsoft Install Sy	stem v3.0b2		

🛱 ASIO Proxy for foobar2000 Setup: Installation Fol 💷 💷 💻 🌉
Setup will install ASIO Proxy for foobar2000 in the following folder. To install in a different folder, dick Browse and select another folder. Click Install to start the installation.
Destination Folder
C:\Program Files (x86)\ASIOProxy\ Browse Browse
Space required: 484.0KB
Space available: 15.7GB
Cancel Nullsoft Install System v3.0b2 < Back Install
覺 ASIO Proxy for foobar2000 Setup: Completed 📃 💷 🔍
ASIO Proxy for foobar2000 Setup: Completed

If you come to this step, you have completed all the preparations.

IV Setup the Software

1. Connect your CMA Twelve to a PC with a USB cable and finish the software setup according to the following steps highlighted from 1 to 9. Close and restart the software, then Foobar2000 is ready for playing PCM and DSD files.

Preferences: Output	? <mark>*</mark>
····· Components	Device 2
▷ · Display	DSD : ASIO : Questyle ASIO Driver
> Media Library	
Networking	Buffer length
 Playback 	
DSP Manager	
	1000 ms
	Warning: setting too low buffer length may cause some visualization effects to stop working,
▲ Tools	Output format
SACD	
Advanced	Output data format: 24-bit Dither
	Refer to your hardware specifications for preferred output bit depth; using bit depth above your
	hardware capabilities will only result in degraded performance.
	Reset all Reset page OK Cancel Apply

Preferences: SACD					? 💌
···· Components	Output Mode:	oso 👻 5			
▷ · Display					
Keyboard Shortcuts	PCM Volume:	+0dB 🚽 🗌 Log	Overloads		
Media Library					
Networking	PCM Samplerate:	44100 🔻			
A Playback	perpenditure des	- In			
	DSD2PCM Mode:	Multistage (32fp)	Load	Save	
ASIO					
···· Shell Integration	Preferable Area:	None 🔻			
	Editable Tags	Store Tags With IS	D Linked 2CH/MCH	Tags	
► Tagging	Edited Master Play	/back			
Advanced					
	Audio Buffer:				
	DSD Output Device	6			
	ASIO : Questyle ASIO	0 Driver	▼ Configure	DoP 🔲 🔲	
	Channel Map (click to	edit)			
	Device channel	Format Map	ping		
	Analogue 1/SP	DSDInt8MSB1 Left			
	Analogue 2/SP	DSDInt8MSB1 Righ	ıt		
		_			
	Output Trace		8		7
	Reset all Reset	t page	ОК	Cancel	Apply

2.In addition, installing plugins for Core Audio Stream channel requires copying the

30 - 1 - - - - - - - - - -	OS (C:) → Program Files (x86) → fooba	ar2000 + components	• •	搜索 com 🔎
文件(F) 编辑(E)	查看(V) 工具(T) 帮助(H)			
组织 ▼ ■ 打	J开方式 新建文件夹		:==	• 🔟 🔞
☆ 收藏夹	名称	修改日期	类型	大小
🚺 下载	🚳 foo_albumlist.dll	2015-11-02 21:31	应用程序扩展	348 KB
三 桌面	🚳 foo_cdda.dll	2015-11-02 21:30	应用程序扩展	303 KB
🖲 最近访问	🚳 foo_converter.dll	2015-11-02 21:30	应用程序扩展	524 KB
2012-1	🚳 foo_dsp_eq.dll	2015-11-02 21:30	应用程序扩展	200 KB
	🚳 foo_dsp_std.dll	2015-11-02 21:30	应用程序扩展	245 KB
	🚳 foo_fileops.dll	2015-11-02 21:30	应用程序扩展	288 KB
⊳ ≠	🚳 foo_freedb2.dll	2015-11-02 21:30	应用程序扩展	300 KB
(月) (月)	🚳 foo_input_std.dll	2015-11-02 21:34	应用程序扩展	1,366 KB
	🔊 foo_out_ks.dll	2006-08-04 21:54	应用程序扩展	146 KB
1 计算机	🚳 foo_rgscan.dll	2015-11-02 21:31	应用程序扩展	367 KB
🚢 OS (C:)	🚳 foo_ui_std.dll	2015-11-02 21:34	应用程序扩展	1,063 KB
👝 DATA (🚳 foo_unpack.dll	2015-11-02 21:30	应用程序扩展	258 KB
LACIE S 🗸				
foo_o 应用程	ut_ks.dll 修改日期: 2006-08-04 21:54 序扩展 大小: 145 KB	创建日期: 2016-02-01 19	:38	

"foo_out_ks.dll" (highlighted in the figure below) to "components" under installation directory. Then restart the software and it is ready for playing files.

If the DSD files fail to play, please try the following:

1. Exit the antivirus software and reinstall the CMA Twelve Driver. Maybe the CMA Twelve program is mistakenly deleted by the antivirus software.

2. Every time you finish setting Foobar2000, please restart the Foobar2000 software.

3. Foobar plugins have different versions and their compatibility is different with different PC operation system. When the DSD files fail to play, please download another version of the plugin on Foobar website, then repeat the above installation steps. The installation succeeds until you see the following options.

THI		
Preferences: SACD		? 🔀
rComponents	Output Mode:	DSD -
Subject y	PCM Volume:	+0dB v Log Overloads
Networking ▲ · Playback	PCM Samplerate:	44100 *
DSP Manager ⊿ · Output	DSD2PCM Mode:	Multistage (32fp) v Load Save
	Preferable Area:	None
SACD ▷ · Tagging	Editable Tags	Store Tags With ISO Linked 2CH/MCH Tags
····· Advanced	Audio Buffer:	
	DSD Output Device	e
	ASIO : Questyle A Channel Map (dick	to edit)
	Device channel	Format Mapping
	Analogue 1/SP Analogue 2/SP	DSDInt8MS81 Left DSDInt8MS81 Right
	Output Trace	
	Reset all Re	OK Cancel Apply

Setup on Mac OSX

For Mac OSX, no special drivers are needed for later versions than OS 10.5.7. The performance of CMA Twelve remains the same on Mac OS with the standard asynchronous transmission via USB.

Make sure your CMA Twelve is selected as the default output device in the system preferences. When you see the following interface after going to "System Preferences"-"Sound"(as shown below), your CMA Twelve is ready to work.

	严音双重 配入	
选择声音输出设备:		
名称	供型	
内置扬声器	内建	
xCORE USB Audio 2.0	U58	
新改设备的10世;		
所选设备的设置:		
所送设备的设置:	所透设备没有输出控制	
所选设备的设置:	所选设备没有输出控制	
所选设备的设置:	所透设备设有输出控制	,
所选设备的设置:	所遗设备没有输出控制	¢
所选设备的设置: 音構端口用作	所选设备没有输出控制	
所选设备的设置: 音线端口用作 输出会错	所选设备设有输出控制 (* (产目输出)) – P PP

Specifications

Г

DAC and Headphone Amplifier Section				
Gain	8.6dB (2.7, Standard) / -1.4dB (0.85, Low)			
247mW @ 300Ω; 1W @ 32Ω (6.35mm headphone jack) 825mW @ 300Ω; 2W @ 32Ω (balanced headphone jack)Max Output Power(Po))To enhance the reliability of CMA Twelve, we have de power-limiting circuit for low impedance, the output power to 1.2W@32Ω for balanced headphones.				
THD+N	0.00070% @Po=100mW, 300Ω 0.00167% @ Po=50mW, 32Ω			
SNR	112 dB, non-weighting			
Frequency Response	DC-20kHz (+0,-0.4dB) @ 0dBFS, 24Bit, 192kHz DC-80kHz (+0,-3dB) @ 0dBFS, 24Bit, 192kHz			
Output	a 6.35mm jack, a 4-PIN balanced headphone jack and a 4.4mm balanced headphone jack			
DAC and Pre-Amp Output Section				
	S/PDIF input and output, PCM 44.1k-192k/16-24Bit standard			
Signal	USB: 44.1k-384k/16Bit-32Bit PCM and DSD Native, DSD64, DSD128, DSD256, as well as DSD64, DSD128, DSD256 of DoP format			
PC OS to Match USB Input	Win XP, Vista, Win7, Win8, Win10, MAC OS and Linux (supporting UAC 2.0)			
Digital Input & Output	SPDIF input and output, Optical input, AES/EBU input Support 44.1kHz-384kHz/16Bit-32Bit PCM			
Core Audio Stream Supported by USB WASAPI, ASIO, KS				
Analog Output	Balanced XLR x1 pair, unbalanced RCA x1 pair			
Max Analog Output Amplitude	Standard 14dBu: XLR: 5.084V RCA: 2.549V Studio 20dBu: XLR: 8.887V RCA: 4.475V			
Analog Output THD+N	Studio 20dBu: RCA: minimum at 0.00115% XLR: minimum at 0.00085%			
Analog Output SNR	RCA: >109dB XLR: >112dB (non-weighting)			

Whole Device				
Voltage	100-120V or 220-230V switchable			
Power Consuming	<30W			
Size	330*200*55mm (jacks are not included)			

The information in this manual is subject to change without notice. All right reserved.

Cautions

1.Do not use your CMA Twelve in a hot or humid environment.

2.Unplug your CMA Twelve in lightning weather or during a long period without using.

3. Do not have your CMA Twelve covered by anything.

4. Only the specified or manufacturer-supplied power cord can be used for your CMA Twelve.

5. Clean your CMA Twelve with a piece of dry cloth or the special detergent.

6. If your CMA Twelve fails to work, please contact your dealer or manufacturer.

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CODE: CE-UM011-CMATV18XXXX

FCC STATEMENT

1. 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.

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

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 instructions, 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.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, Human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation