

固态光源投影机

SNP-X3500C

用户说明书

- 必须阅读“设置手册”文件中的“安全须知”及“操作须知”各节,以确保正确使用本产品。
- 使用此产品之前,请详细阅读本说明书,阅读后请妥善保管好。
- 本说明书的最新版本可通过访问下示网站取得。
<http://www.sonnoc.cn/science.aspx?typeId=28>

器材名称: 固态光源投影机
本说明书中的“投影机”一词专指固态光源投影机

MA1705-A

Sonnoc (Beijing) Technology Co.,Ltd

版次: 2017年5月

Sonnoc

- DLP为美国Texas Instruments公司的注册商标。
- Microsoft, Windows 及 Windows Vista 为美国Microsoft Corporation在美国及其他国家的注册商标或商标。
- HDMI, HDMI 徽标及 High-Definition Multimedia Interface 为HDMI Licensing, LLC公司的商标或注册商标。
- Mac OS 为Apple, Inc.公司在美国及其他国家的商标或注册商标。
- PJLink是在日本、美国及其他国家及地区的申请中的商标或注册商标。
- Crestron是美国Crestron Electronics, Inc.的注册商标。
- AMX是美国AMX LLC公司的注册商标
- XGA 为美国IBM Corporation公司的注册商标。
- 其他公司及产品名称可能为相关所有者之注册商标或商标。
- 本产品的一部分根据Independent JPEG Group的部分软件开发而成。

- 本用户说明书之内容如有变更,恕不另行通知。
- 不得复制本说明书或其中的任何部分。您可以个人使用本说明书。未经索诺克(北京)科技有限公司的许可不得他用。
- 索诺克(北京)科技有限公司对于第三方因使用本产品或本说明书而引起的任何损失或索赔不负任何责任。
- 索诺克(北京)科技有限公司对于因本产品的故障或维修,或任何其他原因造成数据丢失而导致的任何损害或损失皆不负任何责任。
- 本说明书中的插图画面仅为示范参考之用,可能会与产品的实际画面不完全相同。

实用特长及功能	5
事前准备	6
投影机的设置	6
设置须知	6
如何连接投影机的电缆	7
遥控器	8
如何装入遥控器的电池	9
如何更换遥控器的电池	9
投影机的操作	10
输入源的选择	10
如何选择输入源	10
分辨率	10
影像输出操作	11
如何使用手动梯形校正功能	11
如何缩放影像(数码变焦)	11
如何暂时使影像遮屏并静音	12
如何冻结影像	12
如何自动调整影像	12
如何改变投影的画面比例	12
如何调整影像的亮度	13
如何改变彩色模式	13
音量的调节	14
如何调节音量	14
如何消音	14
画质自动校正	15
如何打开或关闭画质自动校正功能	15
如何调节画质级别亮度	15
如何检查节电等级	16
如何打开或关闭画质自动检测控制功能	16
演示定时器的使用	17
如何显示定时器	17
如何显示定时器的功能选单	17
如何配置定时器的设定	17
如何开始倒数定时器的倒数	18
如何暂停定时器的倒数	18

如何让暂停的定时器恢复倒数	18
如何将定时器复位为开始时间	18
设置选单的使用	19
设置选单的基本操作	19
设置选单的设定	20
密码保护	23
密码功能的使用	23
如何改变密码	24
如何改变开机密码设定	24
控制面板锁定	25
如何锁定控制面板	25
如何解锁控制面板	25
投影机的清洁	26
投影机外表的清洁	26
镜头的清洁	26
通风口的清洁	26
疑难排解	27
指示灯	27
错误指示灯及警告信息	28
投影机疑难排解	29
附录	31
与色差视频输出的连接	31
与复合视频输出或S视频输出的连接	31
为外接装置供电	32
投影机的吊装投影	32
投影距离与银幕尺寸	33
画面比例设定与投射影像	34
支持的信号	35
投影机的RS-232C控制	37
如何在投影机与电脑之间建立串行连接	37
索引	55

实用特长及功能

- **无汞固态光源**

由索诺克(北京)科技有限公司开发的固态光源亮度高、耗电少、成本低。本投影机不使用水银灯泡,更加环保。

- **零等待投影**

与需要等待约一分钟的水银灯泡相比,索诺克(北京)科技有限公司的固态光源能在开机后立即达到最大亮度。关机后再次开机时,光源将立即到达最大亮度。在相同情况下,水银灯泡因为要冷却而需要等待较长时间。

- **简单快速的画质级别调整(即刻画质自动校正)**

一个简单的键操作就能立即分七级调节画质级别亮度。

- **使用画质自动检测自动调节亮度(智能画质自动校正)**

投影机探测周围的亮度,并根据需要自动调节亮度,实现高效的低耗电运作。(需要将“画质自动校正”设定为“开”。)

- **支持五种输入源**

模拟RGB,色差视频(Y•Cb•Cr,Y•Pb•Pr),HDMI,复合视频及S视频都可用作输入源。双路HDMI输入。

- **垂直梯形校正**

通过手动调整进行垂直梯形校正(从投影表面的下方或上方进行投影会使投影的形状失真),使投影返回长方形。

- **为外接装置供电**

备有一个5伏直流(5V DC)终端能为外接装置供电。

- **在不切断电源的情况下,暂时显示遮屏画面。**

关闭投影机的电源也会切断对外接装置的供电。为了防止这种情况发生,可用[遮屏]键在不切断电源的情况下,暂时停止投影。

- **16W内置扬声器**

从输入源输入的音频可从投影机的内置扬声器播出。

- **支持吊装及背面投影**

通过配置,投影机即使上下颠倒(吊装投影)或从银幕的背后进行投射,仍能以正常的方向投影。

- **即时开机**

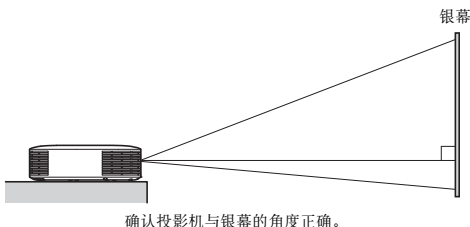
只要插上电源,投影机便可立即自动开机并开始投影。

事前准备

本节介绍如何选择投影机的摆放位置,如何连接电缆,以及如何执行使用之前所需要的其他操作。

投影机的设置

将投影机放置在平稳、水平的桌子、办公桌或台架上。确认投影机的两侧及后面已留有充足的空间能正常通风。下图介绍如何摆放投影机与银幕的相对位置以取得最佳投影效果。

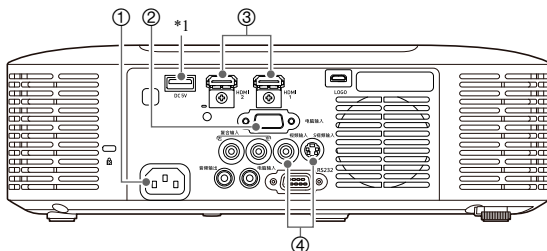


设置须知

- 请使用近处易用的电源插座以便能在需要时随时拨下投影机的电源线。
- 在投影机周围的30厘米之内不要放置任何物品。尤其要注意,不要在投影机的进风口和排风口的附近放置物品。
- 从空调设备排出的气流会吹动从投影机镜头附近排出的热,使投影中出现热波纹。这种情况发生时,请调整空调设备的气流或移动投影机。

如何连接投影机的电缆

在投影机上连接电源及输入源装置。



- ① 用附带的电源线连接投影机与电源插座。
- ② 用RGB电缆连接到计算机或其他输入源的RGB输出终端上。
- ③ 用HDMI电缆连接到电脑、视频装置或其他输入源的HDMI输出终端上。必须用高速HDMI电缆进行连接。投影机上配有两个HDMI输入终端,也就是说可同时连接两台HDMI装置。
- ④ 连接到视频装置的复合输出或S视频输出终端。有关详情请参阅“与复合视频输出或S视频输出的连接”一节(第31页)。

*1 此端口可用于为外接装置供电(最高5V DC 2A)。有关详情请参阅“为外接装置供电”一节(第32页)。

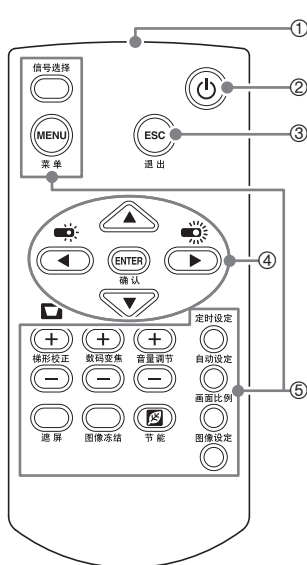


注

- 有关色差视频连接的更详细的说明,请参阅第31页上的“与色差视频输出的连接”一节。
- 有关如何通过连接RS-232C来控制投影机的说明,请参阅“投影机的RS-232C控制”一节(第37页)。

遥控器

投影机的操作使用其附带的遥控器进行。将遥控器的信号发射器对准投影机上的信号接收器之一,并执行遥控器的键操作。遥控器信号的最大有效范围约为5米(信号发射器与信号接收器之间的距离)。



- ① 遥控信号发射器
- ② [电源]键
打开或关闭电源。
- ③ [退出(ESC)]键
按此键可结束当前显示的选单或取消一个操作。
- ④ 光标键(▲/▼/◀/▶), [确认(ENTER)]键
光标键用于在选单项之间移动,以及改变设定值。按[确认(ENTER)]键可选择选单项或执行一种功能。
- ⑤ 这些键每个都有一种固定的功能。有关详情,请参阅“投影机的操作”一节(第10至第25页)中介绍键操作的章节。例如,有关[菜单(MENU)]键说明请参阅“设置选单的使用”一节(第19页)。



重要!

- 为避免耗尽电池,不要将遥控器放在其按钮会被意外按下的地方。

如何装入遥控器的电池



重要!

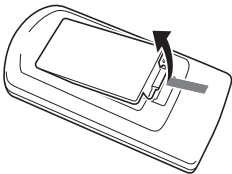
- 必须只使用碱性电池。



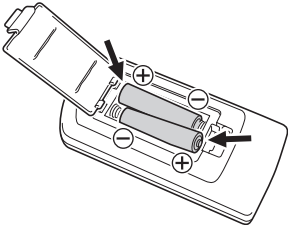
注意

若用错误类型的电池进行更换,则电池有爆炸的危险。
请按照规定废弃用过的电池。

1. 打开遥控器背面上的电池盖。



2. 在电池舱中装入两节新电池,确认其正极(+)及负极(-)的方向正确。



3. 关闭遥控器背面上的电池盖。

如何更换遥控器的电池

打开遥控器背面上的电池盖,将旧电池换为新电池,然后关闭电池盖。

投影机的操作

除非特别注明,本节中介绍的操作都使用遥控器执行。如果投影机和遥控器上有相同的键,则两个键都可用于执行相应的操作。

输入源的选择

输入源名	输出的投影(及声音)
Computer (RGB或组合)	从连接在投影机的电脑输入终端和复合输入终端上的电脑或视频装置输出的影像与声音。
S- 视频	从连接在投影机的S视频输入终端和复合输入右声道/左声道终端上的视频装置输出的影像与声音。
视频	从连接在投影机的视频输入终端和复合输入右声道/左声道终端上的视频装置输出的影像与声音。
HDMI1	从连接在投影机的HDMI 1 终端上的电脑或视频装置输出的影像与声音。
HDMI2	从连接在投影机的HDMI 2 终端上的电脑或视频装置输出的影像与声音。

如何选择输入源

- 按[信号选择]键。
- 在出现的“输入”对话框上,用[信号选择]键、[▲]键及[▼]键选择所需要的输入源后按[确认]键。
 - 如果您不按[确认]键,投影机将在约三秒钟后自动采用当前选择的输入源。
 - 您选择的输入源名将在投影画面的右上角出现数秒钟。
 - 未探测到输入信号时,“无输入信号”信息将出现。

分辨率

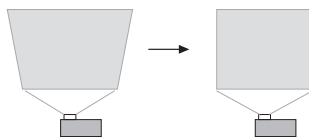
视频的分辨率将固定在XGA(1024 × 768 像素)。当从电脑输入的信号与投影机的视频分辨率不匹配时,影像会显得粗糙、文字及其他地方难以看清或出现波纹图案。这种情况发生时请执行下述操作。

- 改变电脑的输出分辨率设定,使其与投影机的视频分辨率一致。
有关投影机的视频分辨率的资讯,请参阅设置手册中的“规格”。有关变更此设定的详细说明,请参阅电脑附带的用户文件。
- 将“画面比例”设定改变为“原寸”。对于“原寸”设定,投影机以实际原尺寸投影输入信号(输入源的1个点等于投影机输出的一个像素点)。
有关设定画面比例的说明请参阅“如何改变投影的画面比例”一节(第12页)。

如何使用手动梯形校正功能

用[梯形校正 +]键及[梯形校正 -]键可手动校正梯形失真。

- 投影机有梯形校正功能,探测到与银幕不垂直时,自动执行梯形校正。当自动校正结果不理想时,请使用上述操作步骤,手动调整。



注

- 投影画面上没有选单、对话框等显示,还可以用投影机上的[▲]键和[▼]键进行手动梯形校正。

如何缩放影像(数码变焦)

1. 按[数码变焦 +]键。

- 投影的中央部分将被放大一级。

2. 要进一步放大投影的中央部分时,请再次按[数码变焦 +]键。要缩小时,请按[数码变焦 -]键。

- 按[数码变焦 +]键将放大(提高变焦倍率),而按[数码变焦 -]键将缩小。按住其中一键可选换变焦倍率。

3. 影像被变焦后,用[▲]键、[▼]键、[◀]键及[▶]键可卷动至显示影像的其他部分。

4. 要结束变焦操作时,请按[退出]键。

如何暂时使影像遮屏并静音

- 1. 按[遮屏]键。
 - 此时显示的投影画面将被遮屏,信号源的声音同时也被屏蔽。
- 2. 要恢复正常投影与声音时,请按[遮屏]键(或[退出]键)。

如何冻结影像

按[图像冻结]键可冻结当前输入源的投影。要返回输入源影像的实时投影时,请再次按[图像冻结]键或按[退出]键。

如何自动调整影像

- 按[自动设定]键。
- 按[自动设定]键可根据输入信号自动调整频率及相位,以减少闪烁及其他投影问题。
 - 当输入源是Computer(RGB)时可执行本操作。


如何改变投影的画面比例

按[画面比例]键循环选换投影的画面比例。
按[画面比例]键可根据当前的输入源循环选换设定,如下所示。


输入源	按[画面比例]将交替选换这些设定:
RGB, HDMI(PC)	标准 → 全屏 → 16:9 → 16:10
视频*, S-视频*, 组合, HDMI(DTV)	标准 → 16:9 → 16:10 → 4:3

各设定的说明

- 标准: 在保持输入源画面比例的同时以投影机的最大尺寸进行投影。
- 全屏: 通过放大或缩小输入信号以投影机的最大尺寸进行投影。
- 16:9: 此设定指定与电影银幕、高清晰电视机等相同的 16:9 的画面比例。当 16:9 的影像输入信号被压缩为 4:3 的影像时,使用此设定能使影像以其正常的 16:9 的画面比例显示。
- 16:10: 此设定指定 16:10 的画面比例。在 16:10 画面比例的银幕上进行投影时请用此设定调整影像。
- 4:3: 无论输入信号的画面比例为何,影像总是缩放为 4:3 的画面比例进行投影。

 **注**

- 有关画面比例设定对投影的影响的详细说明,请参阅“画面比例设定与投射影像”一节(第 34 页)。
- 当画面比例设定为“原寸”时,投影分辨率小于 SVGA 的 RGB 信号将使影像被放大为 SVGA 后投射。
- 使用设置选单的“画面设定 → 画面比例”设定(第 21 页)也可以改变画面比例。

 **重要!**

- 请注意,以商业为目的或在公共场所进行演示时使用[画面比例]键放大或缩小影像,有侵犯资料所有者的版权的可能。

如何调整影像的亮度

1. 按[图像设定]键。在出现的选单上选择“亮度”,然后按[确认]键。
2. 在出现的亮度调整画面上用[◀]键及[▶]键调整亮度。
3. 要隐藏窗口时,请按[退出]键。



注

- 上述操作能在不影响光源亮度的前提下微调影像的亮度。有关改变光源亮度的说明请参阅“画质自动校正”一节(第15页)。

如何改变彩色模式

1. 按[图像设定]键。在出现的选单上选择“彩色模式”,然后按[确认]键。
 - 画面上将出现彩色模式选择窗口。当前选择的彩色模式为其按钮被选择(点亮)的那个。
2. 用[▼]键及[▲]键将加亮移动至要选择的彩色模式处,然后按[确认]键。
 - 所选彩色模式名左侧的按钮将点亮。
 - 有关各彩色模式的详细说明,请参阅“影像调整1 → 彩色模式”一节(第20页)。
3. 要隐藏窗口时,请按[退出]键。



重要!

- 在下列情况下不能选择彩色模式。
 - 当“画质自动校正”设定被选择为“关”时(第15页)

音量的调节

下述操作用于调节投影机的扬声器或音频输出终端输出的音量。如果投影机没有内置扬声器,则只影响音频输出终端的输出。

如何调节音量

1. 按[音量调节 +]键或[音量调节 -]键。
 - 此时 “音量” 画面出现在投射影像上。
2. 按 [音量调节 +]键提高音量,或按 [音量调节 -] 键降低音量。
3. 设定完毕后,按[退出]键。

如何消音

1. 按[音量调节 +]键或[音量调节 -] 键显示 “音量” 画面。
2. 按[确认]键。
 - 此时扬声器的输出停止。
3. 要复原声音时,请按[音量调节 +]键或[音量调节 -] 键。

画质自动校正

画质自动校正功能用于调节投影机画质级别的亮度。当设置选单上的“画质自动校正”选择为“开”时(初始默认设定),画质亮度级别可调节为七个等级。

设置选单上的“画质自动检测功能”设定选择为“开”时,画质级别亮度依环境光线的明暗自动调节。



注

- 要以最大光源亮度进行投影时,请在设置选单上为“画质自动校正”设定选择“关”。这也使画质级别亮度的变更被禁止。这还会使画质自动检测功能失效。

如何打开或关闭画质自动校正功能

1. 按[菜单]键显示设置选单。
2. 用[▼]键选择“机器设定1”,然后按[确认]键。
3. 用[▼]键选择“画质自动校正”,然后按[确认]键。
 - 画质自动校正对话框出现。
4. 用[▼]键选择“画质自动校正”,然后按[◀]键选择“开”或按[▶]键选择“关”。
5. 按[退出]键退出设置选单。

如何调节画质级别亮度

1. 当投影画面上没有选单、对话框等显示内容时,按[◀]键或[▶]键。
 - 按[◀]键递减画质级别的亮度,或按[▶]键递增画质级别亮度。按其中一键还会显示画质级别对话框,上面的数值1至7是当前的画质级别亮度设定。
2. 在对话框显示过程中,用[◀]键及[▶]键可进一步调节画质级别的亮度。
3. 亮度调节完毕后,按[退出]键结束对话框。
 - 若您不进行任何键操作经过约五秒钟,对话框将自动消失。




注

- 设置选单上的“画质自动校正”设定选择为“关”时,不能进行上述操作。

如何检查节电等级

1. 按[]键。

- 画质自动校正对话框出现。当前的节电等级由对话框顶部上的叶形()图标表示。叶片越多,节电等级越高。
- 此时,您可以用[◀]键及[▶]键调节画质级别亮度。

2. 要关闭对话框时,请按[退出]键。



注

- 设置选单上的“画质自动校正”设定选择为“关”时,不能进行上述操作。

如何打开或关闭画质自动检测控制功能

1. 按[菜单]键显示设置选单。

2. 用[▼]键选择“机器设定1”,然后按[确认]键。

3. 用[▼]键选择“画质自动校正”,然后按[确认]键。

- 画质自动校正对话框出现。

4. 用[▼]键选择“画质自动检测”,然后按[◀]键选择“开”或按[▶]键选择“关”。

5. 按[退出]键退出设置选单。

演示定时器的使用

演示定时器表示一个从预设时间开始的倒数。可用于掌握演讲经过多长时间了,以在预设时间内完成演讲。您设定的演示定时器可以显示在投影中。



如何显示定时器

当定时器未显示在投影中时,按[定时设定]键一次。
如果在定时器的功能选单上“连续显示”设定选择的是“关”,则定时器将出现约五秒钟,然后自动消失。

如何显示定时器的功能选单

当定时器未显示在投影中时,按[定时设定]键两次。在定时器显示过程中,按[定时设定]键一次。



用此选单开始、暂停、恢复或复位定时器,或配置各种定时器的设定。

如何配置定时器的设定

- 1. 用[定时设定]键显示定时设定选单。
- 2. 用[▼]键及[▲]键选择“位置”、“连续显示”或“开始时间”设定,然后如下表所述改变设定。

目的:	执行此操作:
在投影上改变定时器的位置	选择“位置”后用[◀]键及[▶]键选择下列设定之一:“右下”,“右上”,“左上”,“左下”(初始缺省值:右下)。
启用或禁用定时器的连续显示	选择“连续显示”后用[◀]键及[▶]键选择“开”或“关”(初始缺省值:关)。 开:定时器一旦显示,直到您显示其他的对话框或按[退出]键为止,其将显示下去。 关:定时器将在出现约五秒钟后自动消失。
指定定时器的倒数开始时间	选择“开始时间”后用[◀]键及[▶]键指定所需要的倒数开始时间。 开始时间可在5至60分钟之间,以五分钟为单位设定(初始缺省值:20分钟)。

- 3. 要保存设定并关闭定时器的功能选单时,请按[退出]键。
 - 要在改变其设定后立即启动定时器时,请用[▼]键及[▲]键在定时设定选单上选择“启动定时器”,然后在上述操作中按[退出]键之前按[确认]键。

如何开始倒数定时器的倒数

1. 用[定时设定]键显示定时设定选单。
2. 选择“启动定时器”后按[确认]键。
 - 定时设定选单关闭,定时器的倒数开始。
 - 倒数到达00:00后,其开始一次60分钟的正向计时(从-00:01至-60:00)。在正向计时过程中,定时器显示红色的数字(表示演讲已超时)。

如何暂停定时器的倒数

1. 用[定时设定]键显示定时设定选单。
2. 选择“暂停定时器”后按[确认]键。

如何让暂停的定时器恢复倒数

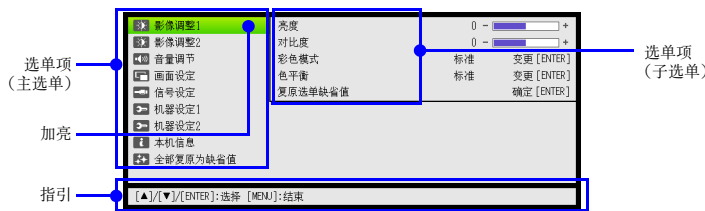
1. 用[定时设定]键显示定时设定选单。
2. 选择“重新启动定时器”后按[确认]键。

如何将定时器复位为开始时间

1. 用[定时设定]键显示定时设定选单。
2. 选择“复位定时器”后按[确认]键。
 - 此时时间返回“开始时间”。

设置选单的使用

按[菜单]键在投影上显示下示的设置选单。此选单用于调整投影的亮度、对比度及其他设定,以及改变投影机设定。





指引表示当前所选(加亮的)选单项可以执行的键操作。



设置选单的基本操作



目的:	执行此操作:
显示设置选单 退出设置选单	按[菜单]键。按[菜单]键退出设置选单将保存其显示过程中您配置的设定。
选择一个选单项	用[▲]键及[▼]键将加亮移动至含有您要选择的选单项的选单处,然后按[确认]键。然后,用[▲]键及[▼]键将加亮移动至要选择的选单项处。
配置选单项的设定	<ul style="list-style-type: none">● 如果选单项的右边有选项或设定值,请用[◀]键及[▶]键改变设定。● 对于右侧有“变更[确认]”或“确定[确认]”的选单项,按[确认]键可显示用于配置设定的对话框。

设置选单の設定

- 选单项后面的一个或多个字母(例如RCV)表示只有当一个或多个特定的输入源被选择时才可用的项目。字母表示选单项可用的输入源。
R: RGB输入, C: 色差输入, V: S视频输入或视频输入, H: HDMI (PC)输入, D: HDMI (DTV)输入
- 后面没有任何字母的选单项表示无论输入源为何都可用。
- 初始缺省设定由星号(*)表示。

使用此选单项:	目的:
影像调整 1 → 亮度	调整投影的亮度。
影像调整 1 → 对比度	调整投影的对比度。
影像调整 1 → 锐度 (V)	此子选单用于调整投射影像中轮廓的锐度。较大的数值使影像更锐利, 而较小的数值使影像更柔和。
影像调整 1 → 饱和度 (V)	此子选单用于调整投射影像色彩的饱和度。较大的数值提高色彩的饱和度。
影像调整 1 → 色调 (V)	此子选单用于调整投射影像的色调。 较大的数值使影像全体更发蓝, 而较小的数值使影像全体更发红。只有当信号为NTSC或NTSC4.43时此设定才有效。
影像调整 1 → 彩色模式	选择下列投影的彩色模式之一: “标准*”, “图形”, “剧场*”, “黑板”, “自然”。 <div> 注 ● 初始缺省设定: 输入源是S视频、视频或HDMI(DTV)时为“剧场”。其他为“标准”。</div>
影像调整 1 → 色平衡	选择下列预设色平衡之一: “暖色”, “标准*”, “冷色”。 还可用于分别调整红、绿、蓝。
影像调整 1 → 画质自动校正关闭模式	当“机器设定 1 → 画质自动校正 → 画质自动校正”设定选择为“关”时, 像质设定指定为“明亮”(亮度优先)或“标准*” (色调优先)。
影像调整 1 → 复原选单缺省值	将“影像调整 1”主选单中的所有选项都复原为当前投影源的初始缺省值。
影像调整 2 → 垂直位置 (RCV)	根据目标银幕调整输入源影像的垂直与水平位置。
影像调整 2 → 水平位置 (RCV)	
影像调整 2 → 频率 (R)	当输入源为RGB时, 若投影中出现垂直条纹, 则表示频率设定不正确。这种情况发生时, 请用此设定手动调整频率。若由于某种原因手动频率设定操作使从电脑输入的影像消失, 请按[自动设定]键进行自动调整操作, 影像会再次出现。
影像调整 2 → 相位 (R)	当影像因投影机的相位与RGB输入信号的相位不匹配而产生闪烁时, 调整RGB输入信号的相位。
影像调整 2 → 过扫描 (CVD)	在0%至5%*的范围内调整输入的视频信号的过扫描的量。投影画面上显示的边框区的大小取决于设定值。较小的值产生较宽的边框区, 如下所示。 <div></div>
影像调整 2 → 复原选单缺省值 (RCVD)	将“影像调整 2”主选单中的所有选项都复原为当前投影源的初始缺省值。
音量调节 → 音量调节	有关详情请参阅“音量的调节”一节(第14页)。

使用此选单项:	目的:
音量调节 → 复原选单缺省值	将音量设定复原为当前投影源的初始缺省值。
画面设定 → 梯形校正	此子选单用于对投射影像进行纵向梯形校正。
画面设定 → 画面比例 (RCVHD)	选择投影的画面比例设定。 有关详情请参阅“如何改变投影的画面比例”一节(第12页)。
画面设定 → 投影方式	指定是从银幕的前面还是从银幕的背面进行投影。 前面*: 要从银幕的前面投影时选择此选项。 背面*: 要从银幕的背面投影时选择此选项。此设定会将从前面投射的影像水平翻转。
画面设定 → 吊装投影	设置投影机上面朝下地吊装在天棚上。 开: 当投影机上面朝下地吊装在天棚上时选择此选项。由于投影机的底部朝上,因此投影在水平方向和垂直方向都是反的。 关*: 在桌面上使用投影机时选择此选项。此投影假设投影机的顶部是朝上的。
画面设定 → 无信号画面	每当没有输入信号输入投影机时选择下列之一作为投射影像: “蓝色”*(蓝色画面), “黑色”(黑色画面), “徽标”(投影机内置的徽标)。
画面设定 → 遮屏画面	选择下列之一作为每当按[遮屏]键时的投影: “蓝色”*(蓝色画面), “黑色”(黑色画面), “徽标”(投影机内置的徽标)。
画面设定 → 复原选单缺省值	将“画面设定”主选单中的所有选项都复原为当前投影源的初始缺省值。
信号设定 → 电脑输入终端 (RC)	指定用于识别电脑输入终端的输入信号的方式。 自动*: 投影机自动识别电脑输入终端的输入信号。 RGB: 总是假设电脑输入终端的输入信号是RGB信号。 组合: 总是假设电脑输入终端的输入信号是色差视频信号。
信号设定 → RGB等级调整 (RC)	指定启用(开*)或禁用(关)RGB输入信号的等级调整功能。让此设定保持为“开”通常能得到最佳的投影。但有些输入信号可能会使此设定得不到最佳影像,甚至使其失真。如果这种情况发生,请将此设定改变为“关”。
信号设定 → 视频信号 (V) 信号设定 → S- 视频信号 (V)	指定用于识别视频输入终端的输入信号的方式。 自动*: 投影机自动识别视频输入信号。 NTSC, NTSC4.43, PAL, PAL-M, PAL-N, PAL60, SECAM: 总是假设视频输入信号是指定类型的视频信号。
信号设定 → 信号名指示符	指定当[信号选择]键被按下来改变输入信号时是显示(开*)还是不显示(关)新选种类的输入信号。
信号设定 → 复原选单缺省值	将“信号设定”主选单中的所有选项都复原为当前投影源的初始缺省值。
机器设定 1 → 自动梯形校正	打开(开*)或关闭(关)自动梯形校正。  注 _____ ● 当“画面设定 → 吊装投影”选择为“开”时不能选择此选项,并且无论此选项的设定是什么,都不进行“自动梯形校正”。
机器设定 1 → 自动调整 (R)	指定投影机是否探测RGB输入信号的类型(分辨率,频率)并相应调整投影。 开*: 自动调整有效。 关: 自动调整无效。  注 _____ ● 如果您要在关机时保留下列“影像调整2”选单上的设定,此设定请选择为“关”:“垂直位置”,“水平位置”,“频率”,“相位”。
机器设定 1 → 画质自动校正	请参阅“画质自动校正”一节(第15页)。
机器设定 1 → 自动关机	指定当没有投影机的操作和输入信号经过多长时间时,自动关机功能自动关闭投影机的电源。需要时可以禁用自动关机功能。 5分钟,10分钟*,15分钟,20分钟,30分钟: 激活自动关机功能的时间。 关: 禁用自动关机功能。

使用此选单项:	目的:
机器设定 1 → 密码	请参阅“密码保护”一节(第23页)。
机器设定 1 → 即时开机	启用(开)或禁用(关*)当投影机的交流电源线插入电源插座时的投影机自动开机功能。
机器设定 1 → 语言	指定显示语言。 英语,法语,德语,意大利语,西班牙语,瑞典语,葡萄牙语,荷兰语,挪威语,波兰语,芬兰语,捷克语,土耳其语,俄语,立陶宛语,越南语,泰国语,马来西亚语,印度尼西亚语,阿拉伯语,中国语(简体字),中国语(繁体字),韩语,日语
机器设定 1 → 复原选单缺省值	将“机器设定 1”主选单中的所有选项都复原为当前投影源的初始缺省值。
机器设定 2 → 音频输出	此子选单用于指定从输入源输入的声音是输出到扬声器(扬声器*)还是输出到外部装置(线路)*1。 ● HDMI *1 当线路被指定时,投影机从其复合输入终端输出声音。
机器设定 2 → 高地模式	根据使用投影机时所在地的高度,打开或关闭高海拔风扇速度设定。 开: 在高海拔(海拔 1,500 至 3,000 米)空气稀薄的地方使用投影机时选择此设定。此设定提高冷却效率。 关*: 在通常的地方(海拔 1,500 米以下)时选择此设定。  重要! _____ ● 不要在海拔 3,000 米以上的地方使用本投影机。
机器设定 2 → 控制面板锁	禁用投影机本体的键操作。 有关详情请参阅“控制面板锁定”一节(第25页)。
机器设定 2 → 关闭字幕 (V)	此子选单用于指定投射含有字幕的视频信号时是否显示封闭字幕。 关*: 封闭字幕不显示。 CC1,CC2,CC3,CC4: 表示当前的封闭字幕的输出设定(CC1,CC2,CC3 及 CC4)。  注 _____ ● 梯形校正不影响显示的封闭字幕的文字。
机器设定 2 → 定时设定	显示定时器的功能选单。有关详情请参阅“演示定时器的使用”一节(第17页)。
机器设定 2 → 复原选单缺省值	将“机器设定 2”主选单中的所有选项都复原为当前投影源的初始缺省值。
本机信息	显示下述投影机的资讯。 输入信号,信号名,分辨率,水平频率,垂直频率,扫描制式,照明时间,版本(投影机的 ROM 版本)
全部复原为缺省值 → 机体运作时间	显示本机的累积动作时间。 此时间不能初始化。
全部复原为缺省值 → 全部复原为缺省值	初始化下列除外的所有设置选单项的设定。 机器设定 1 → 语言,机器设定 1 → 开机密码,本机信息 → 照明时间,本机信息 → 版本,全部复原为缺省值 → 机体运作时间

密码保护

您可以对投影机进行下述密码保护。投影机一次只能设定一个密码,用于操作的密码相同。

● 投影机的启动保护

投影机开机时,投影机可以显示用于提示输入密码的对话框。在这种情况下,直到输入了正确的密码为止,无法对投影机进行进一步的操作。这样可防止未经授权的人使用投影机。

请使用“开机密码”与“内藏存储密码”设定来分别打开或关闭上述操作的密码保护。

密码功能的使用

使用密码功能时请注意下述须知。

- 密码功能能防止未经许可的人使用投影机。但请注意,其不是一种防盗方法。
- 在开启密码功能后首次使用投影机时,您必须输入初始出厂缺省密码。开启密码功能后,应尽快将初始出厂缺省密码改变为自己的密码。
- 请注意,密码操作必须用遥控器进行,因此小心不要丢失或忘记了遥控器。
- 同时还请注意,遥控器的电池耗尽时您将无法输入密码。因此,电池开始电力不足时应尽快更换遥控器的电池。

若您忘记了密码...

如果忘记了密码,必须将下列两项送至索诺克(北京)科技有限公司经销商处以清除密码。请注意,密码的清除为有偿服务。

1. 个人证件(驾驶执照的原件或复印件,工作证等)
2. 投影机本体

请注意,未能出据上述两项时,索诺克(北京)科技有限公司经销商将无法清除投影机的密码。同时,请将投影机的保证书妥善保管。



重要!

- 通过上述手续清除密码将使投影机的所有设定均返回至其初始出厂缺省值,只有点灯时间除外。

密码必须另行记录备份!

忘记密码时投影机将无法使用。强烈建议您抄写或以其他记录方式对密码进行备份,以便在需要时查看。

如何改变密码

1. 按[菜单]键显示设置选单。

2. 用[▼]键选择“机器设定1”,然后按[确认]键。

3. 用[▼]键选择“密码”,然后按[确认]键。

- 画面显示对话框提示您输入密码。

4. 输入密码。

- 投影机的密码实际上不是由字母组成的“单词”,而只是遥控器上的键输入序列。
- 若投影机仍由初始缺省密码保护,请执行下示键操作输入密码。



5. 输入密码后,按[确认]键。

- 此时密码画面出现。

6. 用[▼]键选择“变更密码”,然后按[确认]键。

- 画面显示对话框提示您输入新密码。

7. 输入一个最多八键操作长的键序列。

- 密码的键序列中可使用下列任何键。
[信号选择],[菜单],[遮屏],[图像冻结],[节能],[音量调节+],[音量调节-],[数码变焦+],[数码变焦-],[梯形校正+],[梯形校正-],[▲],[▼],[◀],[▶],[定时设定],[自动设定],[画面比例],[图像设定]

8. 输入新密码后,按[确认]键。

- 画面显示对话框提示您再次输入相同的密码。

9. 再次输入与您在第7步输入的相同的密码键序列,然后按[确认]键。

- “新密码已被登录。”信息出现时表示密码已改变。按[退出]键。
- 若您在此步输入的密码与在第7步输入的不同,则“您输入的密码不正确。”信息将出现。请按[退出]键返回第7步。

如何改变开机密码设定

1. 执行“如何改变密码”一节(第24页)中的第1至第5步操作,显示密码画面。

2. 在确认选择了“开机密码”之后,用[◀]键及[▶]键选择“开”或“关”设定。

- 将设定从“关”改变为“开”将使“开机时提示密码吗?”对话框出现。请按[确认]键确定要打开开机密码保护,或按[退出]键退出对话框而不改变设定。

3. 设定完毕后,按[菜单]键退出设置选单。

控制面板锁定

控制面板锁定功能使投影机上的所有键钮都失效(锁住),只有[⏻]键除外。这使投影机的操作限定在遥控器上,以防止意外的误操作。

如何锁定控制面板

1. 按[菜单]键显示设置选单。
2. 用[▼]键选择“机器设定2”,然后按[确认]键。
3. 用[▼]键选择“控制面板锁”。
4. 用[◀]键选择“开”。
5. 当确认对话框出现时,按[确认]键。
 - 除[⏻]键之外,投影机上的所有键钮都失效(锁住)。
6. 设定完毕后,按[菜单]键退出设置选单。



注

-
- 即使控制面板被锁定,通过按投影机上的[退出]键仍可清除出现在投影画面上的警告信息(第28页)。

如何解锁控制面板

执行下述操作之一。

- 按住投影机上的[▼]键,直到“控制面板已解锁。”信息出现。
- 要使用遥控器解锁控制面板时,请执行上述“如何锁定控制面板”一节中的操作。在第4步,按遥控器上的[▶]键选择“关”。然后按[菜单]键。

投影机的清洁

请按照本节所述养成定期清洁投影机的习惯。在清洁投影机之前,必须从电源插座拔下其电源线并确认已完全冷却。

投影机外表的清洁

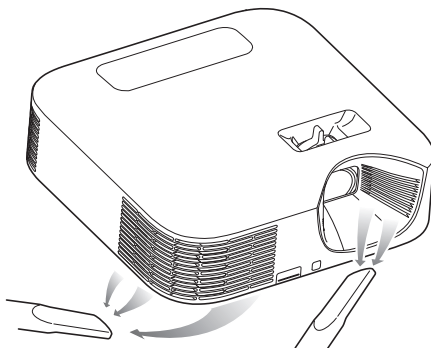
请使用蘸有水及中性清洁剂稀释溶液的软布擦拭投影机的外表。擦拭之前必须拧掉布上多余的水。切勿使用苯、酒精、稀释剂、或任何其他挥发性药剂清洁投影机。

镜头的清洁

用市卖镜头布或光学镜头纸仔细擦拭镜头,就像擦拭眼镜或相机镜头一样。清洁镜头时,不要用力过度,请小心避免损坏镜头。

通风口的清洁

进风口周围容易积蓄灰尘及脏物。因此,您应定期(约每月一次)使用真空吸尘器清除积蓄的灰尘及脏物,如下图所示。



重要!

- 在投影机的进风口附近积蓄有灰尘后继续使用投影机会使内部部件过热并引起故障。
- 某些作业环境还会使灰尘及脏物积蓄在投影机的排风口附近。这种情况发生时,请执行与上述相同的操作清洁排风口。

指示灯

电源/待机指示灯和指示灯变为表示投影机当前的状态,如下表所述。

电源/待机

当指示灯的状态为:	表示投影机:
点亮为红色	已接通电源,但未开机(待机模式)
闪动为绿色	开机后正在热身
点亮为绿色	已开机,可正常操作
闪动为红色	关机后内部操作正在进行

指示灯

当指示灯的状态为:	表示投影机:
点亮为绿色	“画质自动校正”设定选择了“开”
点亮(或闪动)为红色	错误
点亮(或闪动)为褐色	错误



注

- 投影机的电源线刚插入电源插座后,电源/待机和指示灯都会立即点亮为褐色。

错误指示灯及警告信息

警告信息及指示灯会在投影机发生错误时指示问题所在。

- 错误发生时,请等到风扇已停止后再拔下交流电源线。若风扇仍在旋转时拔下交流电源线,则插回交流电源线时可能会发生错误。
- 按[退出]键可清除警告信息。

指示灯/错误信息		说明及所需要的对策
电源 指示灯 信息	: 点亮为绿色 : - (当“画质自动校正”设定选择为“开”时点亮为绿色。) : 内部温度过高。请检查投影机的通风口。	投影机的内部温度过高。请执行下述操作。 ① 检查投影机的进风口及排风口是否被什么东西挡住了,确认投影机的周围留有足够的空间。请参阅“设置须知”一节(第6页)。 ② 若进风口及/或排风口周围积蓄有灰尘。请关闭投影机的电源并将灰尘清除。请参阅“投影机的清洁”一节(第26页)。
电源 指示灯 信息	: 点亮为绿色→ 点亮为红色 : - : 内部温度过高。投影机关机。	因内部过热电源自动关闭。请执行下述操作。 ① 检查投影机的进风口及排风口是否被什么东西挡住了,确认投影机的周围留有足够的空间。请参阅“设置须知”一节(第6页)。 ② 若进风口及/或排风口周围积蓄有灰尘。请将灰尘清除。请参阅“投影机的清洁”一节(第26页)。 如果投影机的通风口没有问题,请确认电源/待机指示灯点亮为红色(不闪动),然后重新开机。如果在开机后错误再次发生,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。
电源 指示灯	: 点亮为红色 : 闪动为褐色 (0.5秒间隔)	电源因风扇有问题而自动关闭。请确认电源/待机指示灯点亮为红色(不闪动)并且风扇已停止转动。在检查了电源/待机指示灯后,从投影机拔下电源线并等到投影机上的所有指示灯全部熄灭。然后再次插入电源线并打开投影机的电源。 如果在开机后错误再次发生,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。
电源 指示灯	: 点亮为红色 : -	电源因系统有问题而自动关闭。在确认电源/待机指示灯点亮为红色(不闪动)后,从投影机拔下电源线并等到投影机上的所有指示灯全部熄灭。然后再次插入电源线并打开投影机的电源。 如果在开机后错误再次发生,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。
电源 指示灯 信息	: 点亮为红色 : 点亮为红色 : -	因可能是由外部数字噪音或一些其他原因而造成的问题而使投影机自动关机。请确认电源/待机指示灯点亮为红色(不闪动)。在检查了电源/待机指示灯后,从投影机拔下电源线并等到投影机上的所有指示灯全部熄灭。然后再次插入电源线并打开投影机的电源。 如果在开机后错误再次发生,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。
电源 指示灯 信息	: 点亮为红色 : 闪动为红色 (0.5秒间隔) : -	投影机因光源单元熄灭或不点亮而自动关机。确认电源/待机指示灯点亮为红色(不闪动)后,拔下电源线。稍等片刻后插回电源线并再次打开投影机的电源。 如果在开机后错误再次发生,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。
电源 指示灯 信息	: 点亮为红色 : 闪动为红色 (以2秒钟或1秒钟为间隔) : -	投影机因存储器错误而自动关机。请确认电源/待机指示灯点亮为红色(不闪动)。在检查了电源/待机指示灯后,从投影机拔下电源线并等到投影机上的所有指示灯全部熄灭。然后再次插入电源线并打开投影机的电源。 如果在开机后错误再次发生,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。

投影机疑难排解

投影机出现任何问题时请检查下列各项。

问题	原因及对策
电源打不开。	<ul style="list-style-type: none"> ● 如果电源/待机指示灯不点亮,则交流电源线可能未正确连接。正确插入交流电源线。 ● 如果电源/待机指示灯点亮为红色,并且指示灯点亮(或闪动)为红色或褐色,则表示发生了某种错误。请参阅“错误指示灯及警告信息”一节(第28页)。
不投射影像或投射的影像异常。	<ul style="list-style-type: none"> ● 连接在投影机上的电脑或视频装置未开机或未输出视频信号。检查连接的电脑或视频装置是否已开机,并在其上执行所需要的操作使其输出视频信号。 ● 投影机的输入源未选择正确。在投影机上的选择对应连接装置的正确输入源。 ● 当视频装置的色差输出终端连接在投影机的电脑输入终端上时,影像可能无法正确投射。
影像的色彩或显示非常不正常。	<p>设置选单上的“信号设定 → 电脑输入终端”设定有可能选择了错误的选项(“组合”或“RGB”)。若当投影机的电脑输入终端连接在电脑的RGB输出终端上时选择了“组合”,或若当投影机的电脑输入终端连接在视频装置的色差视频输出终端上时选择了“RGB”,则影像无法正确投射。将设置选单上的“信号设定 → 电脑输入终端”设定选择为“自动”。请参阅第21页。</p>
信息或选单以我不懂的语言显示。	<p>执行下述操作选择所需要的语言。请参阅第22页。</p> <ol style="list-style-type: none"> 1. 按[菜单]键显示设置选单。 2. 如果输入信号为HDMI(PC),请按[▼]四次后按[确认]键。如果输入信号为HDMI(PC),请按[▼]五次后按[确认]键。 3. 按[▲]两次后按[确认]键显示语言选择选单。 4. 用[▼]键及[▲]键将加亮移动至要选择的语言处,然后按[确认]键。 5. 按[菜单]键退出设置选单。
没有声音从复合输入终端输出	<ul style="list-style-type: none"> ● 投影机的音量设定过低或为静音。用遥控器上的[音量调节 +]键及[音量调节 -]键调节音量。请参阅第14页。 ● 连接在投影机上的装置的音量设定过低或该装置未输出声音。调节连接装置的音量。 ● 连接装置的音频输出可能未正确传送到投影机的音频输入终端中。检查连接。
没有声音从扬声器输出	<ul style="list-style-type: none"> ● 投影机的音量设定过低或为静音。用遥控器上的[音量调节 +]键及[音量调节 -]键调节音量。请参阅第14页。 ● 连接在投影机上的装置的音量设定过低或该装置未输出声音。调节连接装置的音量。 ● 连接装置的音频输出可能未正确传送到投影机的音频输入终端中。检查连接。 ● 当输入源是“HDMI”时,设置选单上的“机器设定2 → 音频输出”设定有可能选择了线路。将“音频输出”设定改变为“扬声器”。请参阅第22页。
色彩异常	<p>输入信号可能与投影机的设定不一致。执行下述操作。</p> <ul style="list-style-type: none"> - 按[图像设定]键后选择“亮度”来调节影像的亮度。 - 按[图像设定]键后选择“彩色模式”来改变彩色模式。 - 在设置选单上用“影像调整1 → 色平衡”调节投影的色平衡。
文字模糊。	<ul style="list-style-type: none"> ● 影像可能未对好焦。调整影像的聚焦。 ● 频率及/或相位设定与输入信号不一致。(仅当输入源是RGB信号时)。按[自动设定]键执行自动调整操作。 ● 在设置选单上执行“影像调整2 → 频率”和“影像调整2 → 相位”调整。(仅当输入源是RGB信号时)。请参阅第20页。
“请输入密码。”信息出现,无法进一步操作。	<p>设置选单上的“机器设定1 → 开机密码”设定处于开启状态,投影机受密码保护。请输入正确的密码,然后按[确认]键。请参阅第23页。</p>
遥控器不起作用。	<ul style="list-style-type: none"> ● 遥控器中的电池可能已耗尽。更换电池。 ● 遥控器与投影机间的距离可能过远。确认遥控器在执行操作时在距离投影机约五米之内。
电源/待机指示灯点亮为红色,并且指示灯点亮(或闪动)为红色或褐色。	<p>有错误发生。请参阅“错误指示灯及警告信息”一节(第28页)。</p>

问题	原因及对策
光源单元不点亮。	<ul style="list-style-type: none">● 已按[遮屏]键暂时关闭了光源。按[遮屏]键或[退出]键再次打开。有关详情请参阅“如何暂时使影像遮屏并静音”一节(第12页)。● 光源单元的服务寿命已过或发生了故障。请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393),委托更换。
电源突然关闭并且投影机重新启动。	投影机定期执行自检操作。自检的结果可能会使投影机自动重新启动,但这种情况极少见。这通常不表示出现了故障,可继续使用投影机。 但是,如果重启操作继续发生,则表示出现了故障。这种情况发生时,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。



重要!

- 请尝试执行下述操作,可能会使投影机恢复正常。
 1. 拔下交流电源线并等至少10分钟。
 2. 插回电源线并再次打开投影机的电源。
- 若执行上述操作后投影机仍不恢复正常,请与索诺克(北京)的授权售后服务经销商或者索诺克(北京)服务中心及其分支机构联系(索诺克(北京)免费服务热线: 400-8985393)。

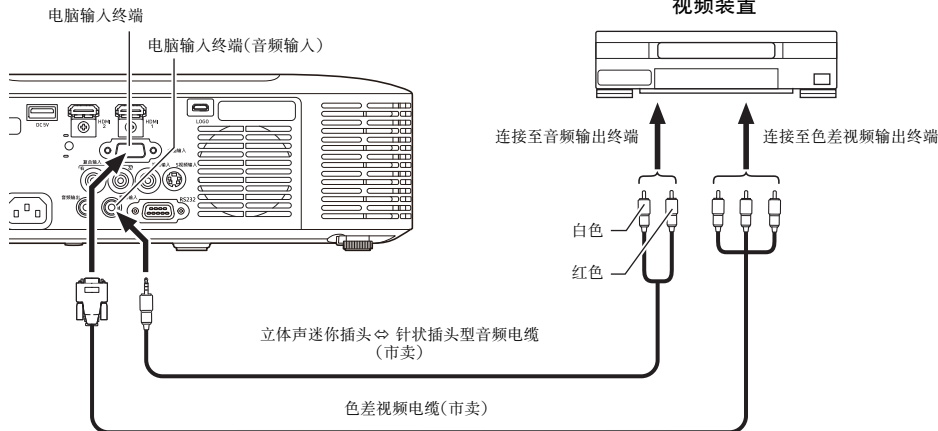
与色差视频输出的连接

本节介绍如何在投影机与视频装置之间建立色差视频连接。

- 色差视频输出终端是一个3终端组: Y•Cb•Cr或Y•Pb•Pr。色差视频电缆上插头的颜色必须与各终端的颜色一致(绿色:Y;蓝色:Cb/Pb;红色:Cr/Pr)。
- 请注意,只能连接模拟色差视频输出终端。
不能连接数字输出终端。

投影机

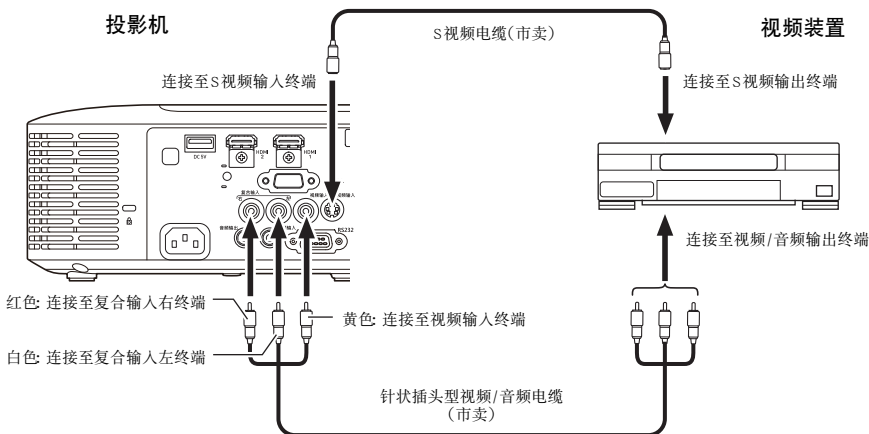
视频装置



与复合视频输出或S视频输出的连接

投影机

视频装置



注

- 请注意,无论投影是从投影机的S视频输入终端输入还是从视频输入终端输入,投影机输出的音频都是从投影机的复合输入右/左终端输入。

为外接装置供电

投影机的USB-A/DC 5V 端口, 投影机的DC 5V 端口可向外接装置供电。



重要!

- 关闭投影机的电源也会切断对外接装置的供电。请注意, 当投影机因自检功能而重新启动, 因自动关机功能而关机, 或因发生错误等原因关机时, 供电也停止。对于有些外接装置, 切断电源可能会使正在编辑的数据丢失或损坏。对于由投影机供电的外接装置, 应养成时刻保存数据的习惯。
- 投影机被自动关机功能(第21页)关闭了电源时, 对外接装置的供电也停止。在开始为外接装置供电之前, 必须将“机器设定1 → 自动关机”设定选择为“关”, 关闭自动关机功能。
- 在从此端口向另一台装置供电之前, 必须检查该装置的用户文件, 确认连接正确。在本投影机的USB端口上连接充电电池进行充电时需要特别小心。连接错误有造成爆炸、着火及冒烟的危险。
- 请注意, 索诺克(北京)科技有限公司对于连接在本投影机的USB端口上取得供电的外接装置上储存的数据的任何丢失或破损, 或外接装置发生的任何损坏、冒烟或着火不负任何责任。



注

- 要在保持从投影机向外接装置供电的前提下暂停投影时, 请按[遮屏]键。有关详情请参阅“如何暂时使影像遮屏并静音”一节(第12页)。

投影机的吊装投影

投影机可以吊装在天棚上。当投影机吊装在天棚上时, 可以让投影机上面朝下或让投影镜头垂直朝下。有关详情请与购买投影机的经销商联系。

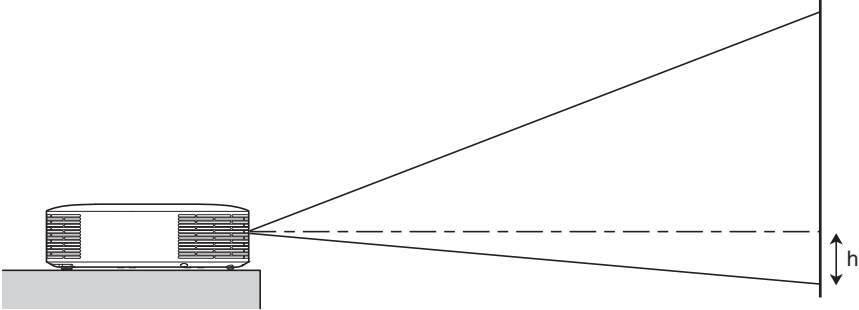


重要!

- 将投影机吊装在天棚上时, 必须距离火灾探测器、火警及其他防火设备一米以上。投影机安装得与防火设备过近有因投影机排出的热气引起防火设备误动作的危险。投影机也不要安装在荧光灯或其他强光源的旁边。明亮的光线会缩短遥控器的控制范围, 甚至使遥控器失效。选择投影机的安装位置时, 必须测试遥控器是否能正常使用。
- 将投影机上面朝下地吊装在天棚上时, 投影的垂直与水平方向是相反的。因此需要改变投影机的设置, 对投影进行修正。有关详情请参阅“设置选单的设定”一节(第21页)下的“画面设定 → 吊装投影”。

投影距离与银幕尺寸

- 下示投影距离值可在设置投影机时用作参考。
- 图中和表中的“h”表示投影机镜头的中心与投影银幕底边间的距离。


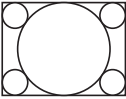
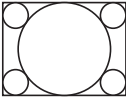
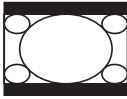
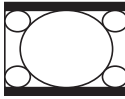
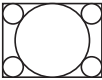
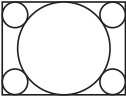
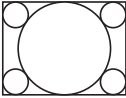
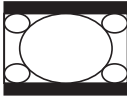
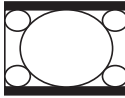
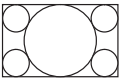
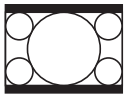
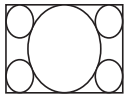
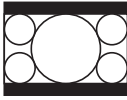
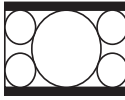
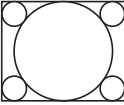
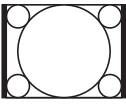
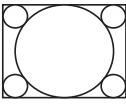
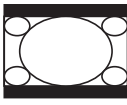
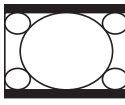


投影尺寸		大约投影距离		
银幕尺寸	对角线长 (厘米)	最短距离 (米)	最长距离 (米)	h
30	76	0.93	1.38	0
35	89	—	—	—
40	102	1.27	1.88	0
60	152	1.95	2.87	0
77	196	2.54	3.72	0
80	203	2.64	3.86	0
100	254	3.33	4.85	0
150	381	5.04	7.33	0
200	508	6.76	9.82	0
300	762	10.18	14.78	0

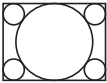
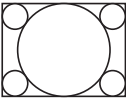
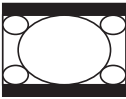
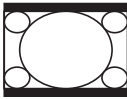
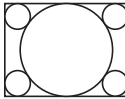
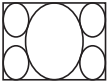
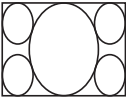

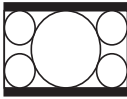
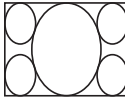
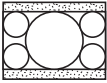
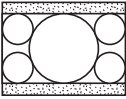
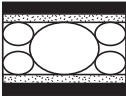
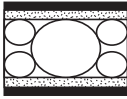
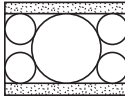
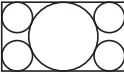


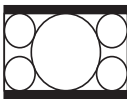
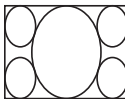
画面比例设定与投射影像

下面介绍影像是如何根据输入信号的种类及投影机的画面比例设定进行投影的。

输入源：RGB 或 HDMI(PC)

输入信号	标准	全屏	16:9	16:10
 SVGA (800 × 600)				
 XGA (1024 × 768)				
 WXGA (1280 × 800)				
 SXGA (1280 × 1024)				

输入源：视频,S-视频,组合或 HDMI(DTV)

输入信号	标准	16:9	16:10	4:3
 4:3画面比例的影像				
 经压缩的影像				
 信箱影像				
 16:9画面比例的影像				

支持的信号



重要！

- 即使是下表中列出的信号,也不保证能正确显示影像。

RGB 信号

	信号名	分辨率	水平频率(kHz)	垂直频率(Hz)
VESA	640 × 480/60	640 × 480	31.5	60
	640 × 480/72	640 × 480	37.9	73
	640 × 480/75	640 × 480	37.5	75
	640 × 480/85	640 × 480	43.3	85
	800 × 600/56	800 × 600	35.2	56
	800 × 600/60	800 × 600	37.9	60
	800 × 600/72	800 × 600	48.1	72
	800 × 600/75	800 × 600	46.9	75
	800 × 600/85	800 × 600	53.7	85
	1024 × 768/60	1024 × 768	48.4	60
	1024 × 768/70	1024 × 768	56.5	70
	1024 × 768/75	1024 × 768	60.0	75
	1024 × 768/85	1024 × 768	68.7	85
	1152 × 864/75	1152 × 864	67.5	75
	1280 × 720/60	1280 × 720	45.0	60
	1280 × 768/60	1280 × 768	47.8	60
	1280 × 800/60	1280 × 800	49.7	60
	1280 × 960/60	1280 × 960	60.0	60
	1280 × 1024/60	1280 × 1024	64.0	60
	1280 × 1024/75	1280 × 1024	80.0	75
	1280 × 1024/85	1280 × 1024	91.1	85
	1366 × 768/60	1366 × 768	47.7	60
	1400 × 1050/60	1400 × 1050	65.3	60
	1440 × 900/60	1440 × 900	55.9	60
	1600 × 1200/60	1600 × 1200	75.0	60
	1680 × 1050/60	1680 × 1050	65.3	60
	1920 × 1080/60	1920 × 1080	67.5	60
	1920 × 1200RB/60	1920 × 1200	74.0	60

色差信号

	信号名	水平频率 (kHz)	垂直频率 (Hz)
HDTV	1080p/50	56.3	50
	1080p/60	67.5	60
	720p/50	37.5	50
	720p/60	45.0	60
	1080i/50	28.1	50
	1080i/60	33.7	60
SDTV	576p/50	31.3	50
	576i/50	16.6	50
	480p/60	31.5	60
	480i/60	15.7	60

视频信号

信号名	水平频率 (kHz)	垂直频率 (Hz)
NTSC	15.7	60
NTSC4.43	15.7	60
PAL	15.6	50
PAL-M	15.7	60
PAL-N	15.6	50
PAL60	15.7	60
SECAM	15.6	50

HDMI 信号

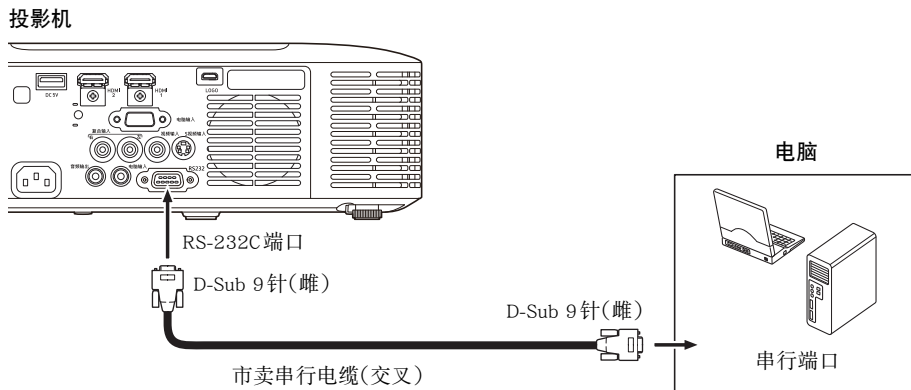
信号名	水平频率 (kHz)	垂直频率 (Hz)
640 × 480/60	31.5	60
800 × 600/60	37.9	60
1024 × 768/60	48.4	60
1280 × 720/60	45.0	60
1280 × 768/60	47.8	60
1280 × 800/60	49.7	60
1280 × 960/60	60	60
1280 × 1024/60	64	60
1400 × 1050/60	65.3	60
1920 × 1080/60	67.5	60
1920 × 1200RB/60	74.0	60
SDTV (480p)	31.5	60
SDTV (576p)	31.25	50
HDTV (720p) (50)	37.5	50
HDTV (720p) (60)	45	60
HDTV (1080i) (50)	28.13	50
HDTV (1080i) (60)	33.75	60
HDTV (1080p) (50)	56.25	50
HDTV (1080p) (60)	67.5	60

投影机的RS-232C控制

当投影机与电脑之间有串行连接时,您可以从电脑传送RS-232C命令来控制投影机。

如何在投影机与电脑之间建立串行连接

如下图所示连接投影机与电脑。



控制命令的使用

本节介绍用于从电脑控制投影机的命令。

命令传送格式

通信协议	使用下列设定配置电脑的串行口。	
	数据速率	19200 bps
	数据比特	8 比特
	奇偶校验	无
	停止比特	1 比特
	流程控制	无
读取命令	需要固态光源投影机的设置资讯时传送此命令。	
	传送格式	(<命令名>?)
	接收格式	(<相应的命令设定范围>,<当前设定>)
	命令传送范例	<div>[[MCL?]] 从电脑向投影机传送。 ↓ [[0-30.15]] 从投影机返回电脑。</div>
写入命令	传送此命令来控制固态光源投影机(开机/关机等)并在投影机中写入数据。	
	传送格式	(<命令名><设定值>)
	命令传送范例	<div>[[MCL0]] 从电脑向投影机传送。 ↓ 投影机的音量设定变为0。</div>


- 有关命令名及设定的详情请参阅“命令列表”。
- 所有命令都使用ASCII字符及十进制的整数。
- 当投影机接收到不认识的命令时将返回一个问号(?)。同时,要设定一个超出相应允许范围的数值的任何命令都将被忽略。
- 如果投影机正在执行一个由之前传送的命令、投影机的键操作或遥控器的键操作激活的进程,则必须等到投影机完成该进程后才能传送下一个命令。

命令列表

- 投影机开机时只有下列功能有效。不要向投影机传送任何其他的命令。
 - 电源开 / 关:读取
 - 电源开:写入
 - 获取点灯时间:读取
- 要使用打开遮屏画面或改变画面比例的命令,必须有有效信号的输入。

R:可以读取 W:可以写入

功能	命令名	RW	设定
开机/关机:	PWR	RW	0:关,1: 开
输入切换: 0: 将输入源切换为电脑输入终端,并将电脑输入终端的设定改变为RGB。 1: 将输入源切换为电脑输入终端并将电脑输入终端设定变更为色差。 2: 将输入源切换为视频。 6: 将输入源切换为电脑输入终端并将电脑输入终端设定变更为自动。 7: 将输入源切换为“HDMI”。 9: 将输入源切换为“S-视频”。 14: 将输入源切换为“HDMI2”。	SRC	RW	0: RGB,1: 组合 2: 视频 6: 自动 (RGB/组合) 7: HDMI,9: S- 视频,14: HDMI2
遮屏画面:打开或关闭遮屏画面。	BLK	RW	0:关,1: 开
音量调节: 指定一个调节音量的值。此设定作用于正在由投影机投影的输入源信号。	VOL	RW	0至30
彩色模式:选择彩色模式。	PST	RW	1: 图形,2: 剧场 3: 标准,4: 黑板 5: 自然
画面比例: 指定画面比例。 当输入源是“RGB”或“HDMI(PC)”时设定0是“标准”设定,而当输入源是色差、“HDMI(DTV)”、“视频”或“S-视频”时设定2是“标准”设定。	ARZ	RW	0: 标准,1: 16:9 2: 标准,3: 信箱 4: 全屏,5: 原寸,6: 4:3 7: 16:10
取得点灯时间: 从投影机取得点灯时间。	LMP	R	0- 单位:小时
画质自动校正: 配置画质自动校正设定和画质自动校正关闭模式设定。	PMD	RW	0:明亮,1: 标准 2:画质自动检测打开 3:画质级别7 4:画质级别6 5:画质级别5 6:画质级别4 7:画质级别3 8:画质级别2 9:画质级别1
冻结: 打开或关闭冻结。	FRZ	RW	0:关,1: 开
梯形校正: 将梯形校正设定指定为一个数值,该数值与下示典型的设置选单上的“梯形校正”设定对应。 0: 梯形校正 - 60 60: 梯形校正 0 120: 梯形校正 +60 例如: 此处的65,指定与梯形校正 +5 相同的设定。	KST	RW	0至120
梯形校正 +/- : 以 1 为单位递增或递减现在的梯形校正设定。	+ :KSP - :KSM	W	0至120

功能	命令名	RW	设定
<p>键: 当键被按下时操作执行。</p> <p> 注</p> <ul style="list-style-type: none"> 各KEY命令设定对应遥控器上的一个键钮。KEY命令执行的投影机操作与对应的遥控器键钮操作相同。从外接装置向投影机传送KEY命令时,一定要以在遥控器上执行的相应键操作的相同顺序传送。 	KEY	W	1:▲,2:▼,3:◀,4:▶,5:确认 6:退出,10:图像设定,11:菜单 12:电源,13:自动设定 14:信号选择,15:定时设定 16:画面比例,17:遮屏 18:图像冻结,19:节能 20:梯形校正 + 21:梯形校正 - 22:数码变焦 + 23:数码变焦 - 24:音量调节 + 25:音量调节 - 26:PLAY(▶▶▶) 27:REWIND(◀◀◀) 28:FORWARD(▶▶▶) 29:PREVIOUS(◀◀) 30:NEXT(▶▶)
<p>设置类型: 指定投影机相对于投影银幕如何摆放。 0: 投影在位于投影机正面的银幕上 *1 1: 从银幕的后面进行吊装投影 *2 2: 从银幕的后面进行投影 *1 3: 吊装投影在位于投影机正面的银幕上 *2</p>	POS	RW	0至3
<p>APO: 用于改变自动关机设定(触发时间设定或禁用自动关机功能)。</p>	APO	RW	0:关,1:5分钟 2:10分钟,3:15分钟 4:20分钟,5:30分钟
<p>错误: 读取投影机的错误状态。</p>	STS	R	0:标准,1:风扇异常 2:温度异常 7:灯泡异常,16:其他异常
<p>音量调节 +/- : 以1为单位递增或递减现在的音量设定。</p>	+ :VLP - :VLM	W	0至30
<p>静音: 打开或关闭静音。</p>	MUT	RW	0:关,1:开

*1 投影机的顶部朝上
 *2 投影机的顶部朝下

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The “Program”, below, refers to any such program or work, and a “work based on the Program” means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term “modification”.) Each licensee is addressed as “you”.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program’s source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
 - a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.
6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.
7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

- 10.If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

- 11.BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.
- 12.IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the “copyright” line and a pointer to where the full notice is found.

```
one line to give the program's name and an idea of what it does.
Copyright (C) yyyy name of author
```

```
This program is free software; you can redistribute it and/or
modify it under the terms of the GNU General Public License
as published by the Free Software Foundation; either version 2
of the License, or (at your option) any later version.
```

```
This program is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
GNU General Public License for more details.
```

```
You should have received a copy of the GNU General Public License
along with this program; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
```

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details
type 'show w'. This is free software, and you are welcome
to redistribute it under certain conditions; type 'show c'
for details.
```

The hypothetical commands ‘show w’ and ‘show c’ should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than ‘show w’ and ‘show c’; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a “copyright disclaimer” for the program, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright
interest in the program 'Gnomovision'
(which makes passes at compilers) written
by James Hacker.
```

```
signature of Ty Coon, 1 April 1989
Ty Coon, President of Vice
```

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts
as the successor of the GNU Library Public License, version 2, hence
the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the “Lesser” General Public License because it does Less to protect the user’s freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users’ freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a “work based on the library” and a “work that uses the library”. The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called “this License”). Each licensee is addressed as “you”.

A “library” means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The “Library”, below, refers to any such software library or work which has been distributed under these terms. A “work based on the Library” means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term “modification”).

“Source code” for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library’s complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
- a) The modified work must itself be a software library.
 - b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
 - c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a “work that uses the Library”. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a “work that uses the Library” with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a “work that uses the library”. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a “work that uses the Library” uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a “work that uses the Library” with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer’s own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

- a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable “work that uses the Library”, as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user’s computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the “work that uses the Library” must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:
 - a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
 - b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.
10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.
11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and “any later version”, you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the “copyright” line and a pointer to where the full notice is found.

```
one line to give the library's name and an idea of what it does.  
Copyright (C) year name of author
```

```
This library is free software; you can redistribute it and/or  
modify it under the terms of the GNU Lesser General Public  
License as published by the Free Software Foundation; either  
version 2.1 of the License, or (at your option) any later version.
```

```
This library is distributed in the hope that it will be useful,  
but WITHOUT ANY WARRANTY; without even the implied warranty of  
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU  
Lesser General Public License for more details.
```

```
You should have received a copy of the GNU Lesser General Public  
License along with this library; if not, write to the Free Software  
Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
```

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a “copyright disclaimer” for the library, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in  
the library 'Frob' (a library for tweaking knobs) written  
by James Random Hacker.
```

```
signature of Ty Coon, 1 April 1990  
Ty Coon, President of Vice
```

That's all there is to it!

C		S	
彩色	13	S 视频输出	31
错误指示灯	28	色差视频输出	31
D		设置	6
电池	9	设置选单	19
电脑	37	T	
吊装	32	梯形校正功能	11
定时器	17	投影距离	33
冻结	12	X	
F		消音	14
分辨率	10	信号	35
复合视频	31	Y	
H		遥控器	8
画面比例	12, 34	疑难排解	27, 29
画质自动校正	15	音量的调节	14
J		银幕	6
机器设定 1	24	银幕尺寸	33
机器设定 2	25	Z	
警告信息	28	暂停	18
镜头	26	指示灯	27
静音	12		
K			
控制面板锁定	25		
L			
亮度	13		
M			
密码保护	23		
Q			
清洁	26		
R			
RS-232C	37		