

Godox 神牛

QH II Series

高速影室闪光灯

Amazing Fast Speed and Multi-Freeze Flash



神牛摄影器材有限公司

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FC CE RoHS 回收标志

中英文双语 / Chinese English Bilingual

说明手册 / INSTRUCTION MANUAL

前言

感谢您使用QHII系列高速闪光灯。

此系列产品适用广泛,除了能满足各种摄影工作室及影棚的日常拍摄,还特别适用于捕捉瞬间物体的拍摄,如动态摄影,舞台摄影,体育摄影,科学研究摄影等,另外,在时尚摄影或人像摄影中,可使用连拍连续捕捉模特一现即逝的精彩表情。

产品有以下亮点：

- 极速回电,0.05-0.9秒回电时间
- 高速闪光,闪光持续时间(t0.1)最快可达(高速闪光(speed)模式):
220V 600W: 1/ 28984S
220V 400W: 1/ 35086S
110V 600W: 1/ 19606S
110V 400W: 1/ 22988S
- 实现相机高速同步最高1/8000(配高速遥控器,如X1)
- 高速连拍每秒可达10张
- 闪光强度随意选择,LCD屏从1/128~1/1准确定位输出功率
- 150W大功率造型灯,亮度20级可调
- 输出稳定,同一功率高速连续输出变化不超过2%
- 近日光色温,全程色温变化<200K(色温恒定模式)
- 内置X1系统(2.4G传输)
- S1/S2光控引闪
- Delay延时功能
- Mask蒙板功能
- 高品质LCD液晶屏

安全须知

在使用本设备前请仔细阅读下面的安全须知,并妥善保管以便所有本产品使用者可随时参阅。

- ▲ **请勿拆卸或改造**
内部有高压储能元件,违反此警告可能会触电或导致产品故障。若本产品因为摔落或其他意外事故造成破损,请将产品送至厂家授权的维修中心进行检查维修。
- ▲ **保持干燥**
请勿用湿手接触产品,亦不可将产品浸入水中或暴露于雨中,否则可能产品会损坏。
- ▲ **请勿在儿童伸手可及之处保管本产品**
本产品包含可能引起窒息的零件。如果儿童不小心吞食了零件,请立即送往医院救治。
- ▲ **请勿置于高温中**
请勿将本产品放置于极高温的地方,否则可能导致火灾或损坏本产品的外壳或内部部件。

注意事项

- ▲ 闪光灯在全功率的情况下连续引闪100次后,需要10分钟左右的冷却。如果连续使用而不冷却就会产生高温积热。
- ▲ 不可长时间使用造型灯,可能造成覆盖在灯头上的柔光箱等易燃附件燃烧。有易燃附件时建议连续使用造型灯的时间不超过10分钟。请冷却1分钟后再继续使用。
- ▲ 使用束光筒时,请勿长时间点亮造型灯或过频闪光。否则会产生积热,造成灯体外壳或性能受损。
- ▲ 当闪光灯引闪或造型灯工作状态,都存在能量释放,有高温存在,请勿触摸灯头。
- ▲ 灯管插座两极存在高压,请勿触摸! 装卸灯管及造型灯时请配带绝缘手套。
- ▲ 避免突然的碰撞, 防止闪光灯管或造型灯受损。
- ▲ 请勿将闪光灯头正对人眼闪光(特别是婴儿的眼睛,(否则可能会在短时间造成视力障碍。
- ▲ 在不使用时,请断开电源。

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本说明书中使用的约定

- 此使用说明书中的操作步骤假定相机和闪光灯的电源开关已开启。
- 参考页码由(第**页)表示。
- 此使用说明书中使用以下警告符号：

 该“小心”符号表示避免出现拍摄问题的警告。

 该“注意”符号提供补充信息。

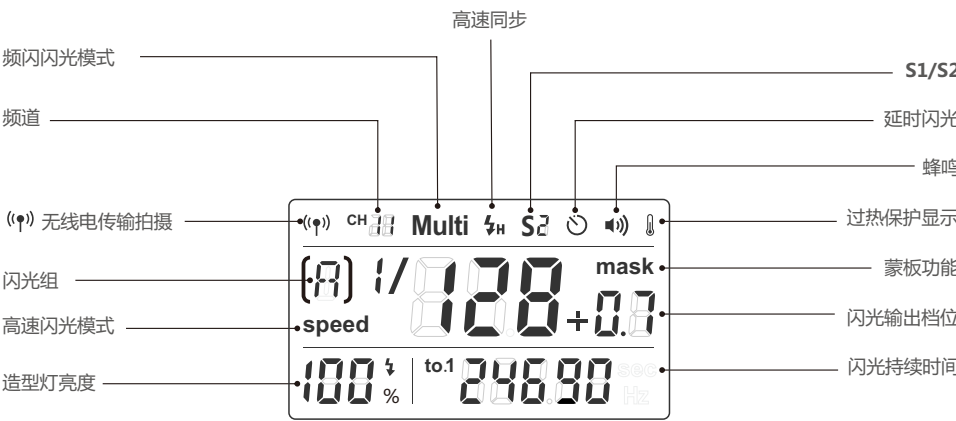
部件名称

机身：



部件名称

LCD液晶显示屏



所配附件

- 1、同步线 2、电源线 3、反光罩 4、灯头保护罩 5、玻璃灯罩 6、造型灯 7、说明书



可选购附件

可搭配本公司以下摄影附件使用,以获得最佳的拍摄效果和使用体验: X1无线引闪器、逆变器、柔光箱、反光伞、灯架、蜂巢、雷达罩、束光筒等。



使用闪光灯

固定闪光灯

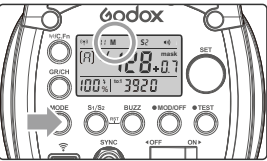
1、取下灯头保护罩,装上造型灯并套上玻璃灯罩。



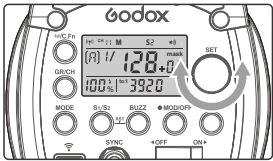
2、将闪光灯设备安装在一个合适的灯架上,调整好托架并扭紧固定,方向调节把手可按用户要求调节灯的方向。伞孔可以插上各类影楼伞。

M: 手动闪光

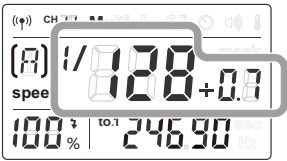
在此模式下,您可以在1/128至1/1功率间以0.1档为增量设置闪光输出。为获得正确的闪光曝光,请使用手持的闪光测光表确定所需的闪光输出。



1 按<MODE>模式选择按钮,屏幕显示<M>。

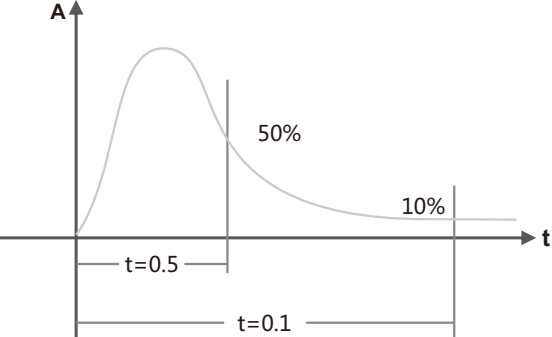


2 转动调节旋钮设置闪光输出功率。



显示闪光持续时间

闪光持续时间是指闪光灯从开始发光到达发光半峰值的时间长度。半峰值的表示为t=0.5。为了给摄影师提供更详细的拍摄数值,本产品采用t=0.1。如下图:t=0.5与t=0.1区别。



• 只有在M模式下才会显示持续时间。

色温恒定模式及高速闪光(speed)模式

在C.Fn-F1设置中可以选择色温恒定模式或者高速闪光(speed)模式。此2种模式在M/Multi闪光模式下有效。高速同步模式下此2种模式无效。

色温恒定模式(默认):全程色温漂移<200K内,追求色温稳定性的摄影师请选择此模式。

高速闪光(speed)模式:最快闪光持续时间t0.1=1/28984,需要凝固运动物体拍摄的请选择此模式。此模式下色温偏高,请摄影师把相机的白平衡参数调整至相应的色温值(参考下表值)或者自动白平衡。

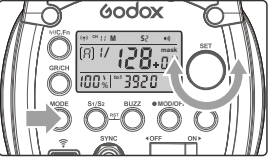
220V QH600II 样机测试					
测试环境	暗房				
色温测试	仪器	SEKONIC C-700			
	测试方法	距离 2 米引闪, 测量 3 次求平均值			
闪光持续时间 (t0.1)	IGBT 控制闪光灯的打开时间				
色温恒定模式			高速闪光 (speed) 模式		
参数 档位	色温 CCT(K)	闪光持续时间 t0.1(S)	参数 档位	色温 CCT(K)	闪光持续时间 t0.1(S)
1/128	5729	1/ 4246	1/128	9335	1/ 28984
1/128+0.3	5718	1/ 4166	1/128+0.3	9108	1/ 26666
1/128+0.7	5686	1/ 3920	1/128+0.7	9010	1/ 24690
1/64	5619	1/ 3920	1/64	8535	1/ 22988
1/64+0.3	5635	1/ 3920	1/64+0.3	8205	1/ 20832
1/64+0.7	5657	1/ 3920	1/64+0.7	7698	1/ 18518
1/32	5630	1/ 3920	1/32	7367	1/ 16666
1/32+0.3	5639	1/ 3920	1/32+0.3	7151	1/ 15150
1/32+0.7	5608	1/ 3702	1/32+0.7	6856	1/ 13332
1/16	5620	1/ 3702	1/16	6579	1/ 11904
1/16+0.3	5647	1/ 3702	1/16+0.3	6440	1/ 10582
1/16+0.7	5657	1/ 3702	1/16+0.7	6216	1/ 8888
1/8	5677	1/ 3702	1/8	6126	1/ 7662
1/8+0.3	5674	1/ 3508	1/8+0.3	6072	1/ 6666
1/8+0.7	5610	1/ 2666	1/8+0.7	5954	1/ 5332
1/4	5568	1/ 2298	1/4	5907	1/ 4596
1/4+0.3	5566	1/ 1904	1/4+0.3	5867	1/ 3808
1/4+0.7	5656	1/ 1626	1/4+0.7	5837	1/ 2898
1/2	5646	1/ 1332	1/2	5844	1/ 2222
1/2+0.3	5681	1/ 1256	1/2+0.3	5738	1/ 1550
1/2+0.7	5649	1/ 832	1/2+0.7	5636	1/ 832
1/1	5549	1/ 316	1/1	5539	1/ 316

220V QH400II 样机测试					
测试环境	暗房				
色温测试	仪器	SEKONIC C-700			
	测试方法	距离 2 米引闪, 测量 3 次求平均值			
闪光持续时间 (t0.1)	IGBT 控制闪光灯的打开时间				
色温恒定模式			高速闪光 (speed) 模式		
参数 档位	色温 CCT(K)	闪光持续时间 t0.1(S)	参数 档位	色温 CCT(K)	闪光持续时间 t0.1(S)
1/128	5744	1/ 4938	1/128	9323	1/ 35086
1/128+0.3	5759	1/ 4694	1/128+0.3	9277	1/ 33332
1/128+0.7	5747	1/ 4444	1/128+0.7	9130	1/ 30302
1/64	5761	1/ 4444	1/64	8919	1/ 27776
1/64+0.3	5775	1/ 4444	1/64+0.3	8926	1/ 25640
1/64+0.7	5780	1/ 4444	1/64+0.7	8836	1/ 22222
1/32	5753	1/ 4444	1/32	8432	1/ 20202
1/32+0.3	5771	1/ 4444	1/32+0.3	8183	1/ 18518
1/32+0.7	5754	1/ 4444	1/32+0.7	7784	1/ 16666
1/16	5764	1/ 4444	1/16	7368	1/ 15150
1/16+0.3	5752	1/ 4444	1/16+0.3	6983	1/ 13332
1/16+0.7	5755	1/ 4444	1/16+0.7	6763	1/ 11494
1/8	5777	1/ 4444	1/8	6533	1/ 10100
1/8+0.3	5734	1/ 3920	1/8+0.3	6377	1/ 8546
1/8+0.7	5665	1/ 3030	1/8+0.7	6192	1/ 6872
1/4	5604	1/ 2468	1/4	6061	1/ 5648
1/4+0.3	5621	1/ 2468	1/4+0.3	5957	1/ 4566
1/4+0.7	5626	1/ 2222	1/4+0.7	5840	1/ 3508
1/2	5654	1/ 2082	1/2	5962	1/ 2656
1/2+0.3	5672	1/ 1514	1/2+0.3	5807	1/ 2014
1/2+0.7	5695	1/ 1148	1/2+0.7	5711	1/ 1148
1/1	5595	1/ 416	1/1	5579	1/ 416

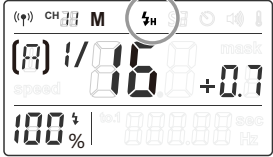
⚡ 高速同步闪光

⚡ 高速同步

在此模式下,您可以在1/16至1/1功率间以0.3档为增量设置闪光输出。
使用高速同步闪光,您可以在所有的快门速度下同步使用闪光灯。高速同步模式下,使用光圈优先对人像进行填充闪光时特别方便。



1 按<MODE>模式选择按钮, 屏幕显示<⚡H>。



2 转动调节旋钮设置闪光输出功率。

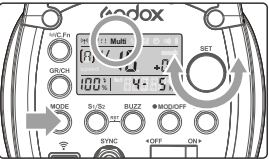


3 发射器请使用X1系列发射器。

- 使用高速同步时,快门速度越高,有效的闪光范围就越小。
- 在高速同步模式下,无法设置频闪闪光。
- 在高速同步模式下,由于灯管特性,色温会偏低(下降700K左右),请将相机白平衡设置调至自动。

Multi: 频闪闪光

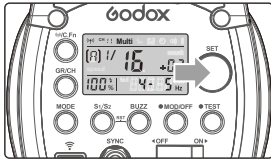
在此模式下,您可以在1/128至1/8功率间以0.3档为增量设置闪光输出。使用频闪闪光,可以发出一系列快速的闪光。它可以在一张照片上拍摄移动物体的多个图像。您可以设置闪光频率(每秒的闪光次数,以Hz表示)、闪光次数和闪光输出。



1 按<MODE>闪光模式选择按钮,屏幕显示<Multi>。



2 转动调节旋钮设置闪光输出功率。



3 设置闪光频率和闪光次数。
• 按SET按钮选择闪光次数, 旋转调节旋钮设定数值。
• 按SET按钮选择闪光频率, 旋转调节旋钮设定数值。

计算快门速度

在频闪闪光过程中,到闪光停止为止快门应保持开启状态。使用下面的公式计算快门速度,然后用相机进行设置。

$$\text{闪光次数/闪光频率} = \text{快门速度}$$

例如,如果闪光次数是10,闪光频率是5Hz,快门速度则至少为2秒。

- 反光很强的被摄体在暗背景前使用频闪闪光更加有效。
- 推荐使用三脚架和遥控开关。
- 闪光输出为1/1和1/2时不能设置频闪闪光。
- 如果闪光次数显示为--,则闪光灯会连续闪光,直到快门或电池耗尽。如下表所示,闪光次数将受到限制。

最大频闪闪光次数

闪光输出 \ Hz	1	2	3	4	5	6-7	8-9	10	11	12-14	15-19	20-30
1/8	7	6	5	4	4	3	3	2	2	2	2	2
1/16(+0.3, +0.7)	14	14	12	10	8	6	5	4	4	4	4	4
1/32(+0.3, +0.7)	30	30	30	20	20	20	10	8	8	8	8	8
1/64(+0.3, +0.7)	60	60	60	50	50	40	30	20	20	18	16	16
1/128(+0.3, +0.7)	99	99	90	80	80	70	60	50	40	35	30	30

无线闪光拍摄：无线电(2.4G)传输

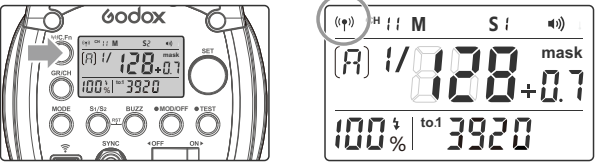
QHII系列内置2.4G无线X系统,可以与本厂其他型号完美结合使用。
尼康相机(使用X1T-N、TT685N等)和佳能相机(使用X1T-C、TT685C等)可同时同地共享一台或多台QHII,无缝结合,无懈可击！



*QHII作为从属单元,可受控主控单元型号: AD360II-C、AD360II-N、TT685C、TT685N、X1T-C、X1T-N、TT600等。

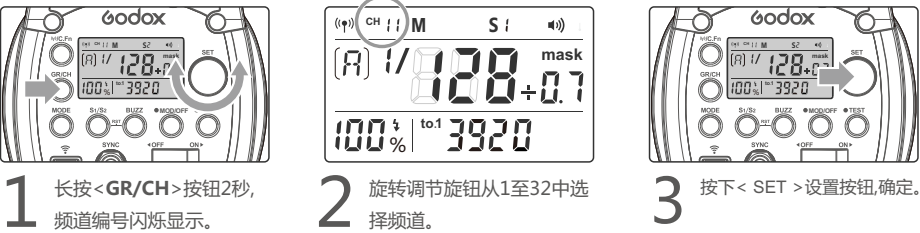
无线设置

按下<C.Fn>无线设置按钮,令屏幕显示<S1>,此时进入2.4G无线状态。

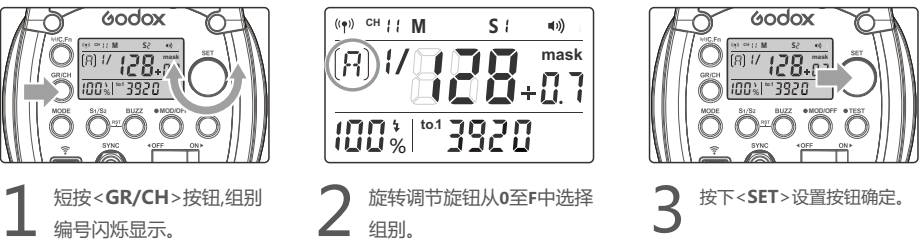


设置通讯频道

如果在拍摄现场不止一个无线闪光系统,您可以通过更改通讯频道来防止信号干扰。保证主控单元和从属单元设置为相同的频道编号即可。



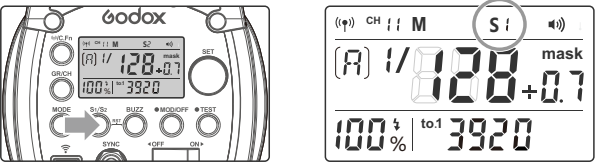
设置通讯组别



无线闪光拍摄：光控模式

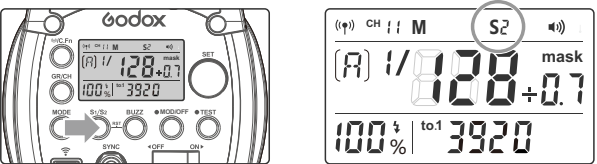
S1光控单元设置

按<S1/S2>按钮选择S1功能,闪光灯可作为副灯使用,创造多种照明效果,适用于手动闪光环境。它会与主闪光灯的第一次闪光同步触发闪光,效果与使用无线引闪器一致。



S2光控单元设置

按<S1/S2>按钮选择S2功能,闪光灯可作为副灯使用,适用于TTL闪光环境。具有防预闪功能,使用带一次预闪功能的相机能用光控实现同步拍摄。它会与主闪光灯的第二次闪光同步触发闪光,即2次光控引闪。



造型灯

QHII配置150W造型灯,5%~100%亮度调控,2种长亮模式。

- 造型灯打开和设置亮度:
 - 在造型灯关闭状态,短按造型灯按钮即打开造型灯。
 - 在造型灯打开状态,短按造型灯按钮设置亮度,此时亮度值闪烁,旋转调节旋钮选择亮度。
- 关闭造型灯
长按造型灯按钮2秒可关闭造型灯。
- 造型灯模式选择
 - 长按C.Fn自定义按钮2秒,显示Fn菜单。
 - 按SET按键选择F4。
 - 旋转调节旋钮选择模式。
ON:引闪时造型灯状态不变。
OFF:引闪时造型灯熄灭。
短按C.Fn自定义按钮退出。

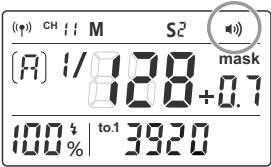


声音提示

蜂鸣按键控制蜂鸣提示的打开和关闭,当LCD屏蜂鸣器符号显示时,表示蜂鸣提示音打开。LCD屏蜂鸣器符号不显示,表示蜂鸣提示音关闭。

当蜂鸣器开启:

- 1、每次回电充满时会响 “BI--” 一声,提示可以引闪。
- 2、按键与旋钮每次相应会响 “BI--” 一声。



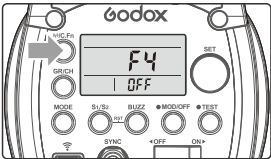
C.Fn: 设置自定义功能



1 长按C.Fn自定义按钮2秒,显示Fn菜单。



2 按SET按钮选择Fn功能符号。



3 旋转调节旋钮进行更改设置。短按C.Fn自定义按钮退出。

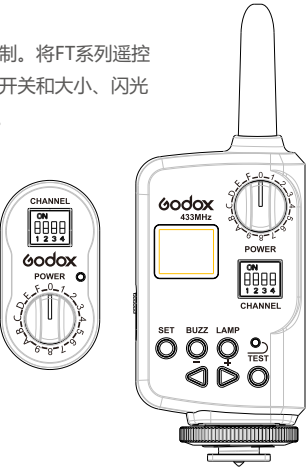
自定义功能符号	功能	设置符号	设置和说明	使用范围限制
F1	高速闪光选择	ON	高速闪光(speed)模式	M/Multi模式
		OFF	色温恒定模式	
F2	延时闪光	OFF, 0.01~30S	可作为后帘引闪	M/Multi模式
F3	蒙板	OFF	蒙板功能关闭	M模式
		N1	蒙板功能开启: 触发2次为1个周期,触发第1次引闪。	
		N2	蒙板功能开启: 触发2次为1个周期,触发第2次引闪。	
F4	造型灯模式	ON	引闪时造型灯状态不变	无
		OFF	引闪时造型灯熄灭	

其他应用

外置无线控制功能

闪光灯内置无线控制插座,配合特定遥控器使用,您可以实现对闪光灯的无线控制。将FT系列遥控器的接收端插入无线控制插座,手持遥控器发射端,即可远程控制闪光灯的功率开关和大小、闪光灯触发等。您也可以将发射端置于相机热靴上,通过相机快门来进行同步引闪。

• 更多遥控器的使用方法,请查阅FT系列遥控器的说明书。



同步插孔触发

同步插孔规格为Φ6.35mm,此处可插入同步线或者触发器触发插头对闪光灯进行同步引闪。



记忆存储功能

闪光灯设有记忆设置功能,设置完毕后三秒内未更改闪光灯会存储。下次开机使用时初始设置跟关机前一致。

装卸闪光灯管

关闭所有电源,带上绝缘手套,将闪光灯管上的铁丝拧松,用平衡力拿住灯管两脚间,轻轻往外拉出卸下旧灯管。将旧灯管两脚上的套管取下套到新灯管两脚,拿住新灯管两脚间,对准灯头上两铜柱,用平衡力往里推进。最后将铁丝绕灯管弹片并拧紧固定好灯管。



规格参数

型号		QH600II	QH400II
闪光模式		M/Multi/Hss (高速同步)	
1/1 档闪光指数(m ISO 100，使用标准反光罩)		76	65
闪光持续时间(τ0.1)	高速闪光 (speed) 模式	1/316 秒 - 1/28984 秒(220V);	1/416 秒 - 1/35086 秒(220V);
		1/190 秒 - 1/19606 秒(110V);	1/192 秒 - 1/22988 秒(110V);
	色温恒定模式	1/316 秒 - 1/4246 秒(220V);	1/416 秒 - 1/4938 秒(220V);
		1/190 秒 - 1/3766 秒(110V);	1/192 秒 - 1/3702 秒(110V);
色温	色温恒定模式	5600±200K	5600±200K
	高速闪光 (speed) 模式	5400K~9500K	5400K~9500K
	高速同步闪光模式	4600K~5000K	4600K~5000K
功率 POWER		600WS	400WS
回电时间		约 0.05-0.9 秒	约 0.05-0.7 秒
档位范围	M	1/128~1/1	
	Hss	1/16~1/1	
	Multi	1/128~1/8	
频闪闪光		具备(最大次数:99 次;最大频率:30)	
实现同步方式		高速同步(最高 1/8000 秒),前帘同步,后帘同步	
延时引闪		0.01~30 秒	
蒙板(MASK)		√	
风扇		√	
蜂鸣器		√	
Model 造型灯		150W	
光控引闪		S1/S2	
显示闪光持续时间		√	
显示		高品质 LCD 液晶屏	
• 无线电 2.4G 传输(X 系统)			
无线功能		从属单元, ON/OFF	
可控制从属单元组		16 组:0~9,A,B,C,D,E,F	
传输范围(约)		50m	
频道		32 组:1~32	
同步触发方式		6.35mm同步插孔 , 无线控制插座 , 内置2.4G无线传输	
尺寸		灯体直径 :Φ14CM, 含把手高 :23CM, 含保护罩长 : 39CM	
净重		约 3.04KG	

维护保养

- 闪光灯在工作时,如发现异常,应立即关掉电源,查明原因。
- 灯体应避免震动,平时注意表面除尘。
- 灯体稍有发热为正常现象,无特别需要时,勿连续引闪。
- 闪光灯的所有维修概由本厂指定可供原厂配件之维修部负责。
- 1年保修,消耗品如灯管等,不在1年保修范围。
- 经发现,擅自检修此闪光灯的,将取消闪光灯之一年保修期,维修需要收取相关费用。
- 如果本品出现故障或者被水淋湿,在专业人员维修后方可继续使用。
- 如有技术更改,恕不另行通知。

Foreword

Thank you for purchasing a GODOX product.

Thanks for choosing QHII series high-speed flash. It has wide-range applicability, not only perfect for all kinds of studio and workshop photography, but also good at capturing fast-changing actions in a chain of pictures in high-speed continuous shooting e.g. action photography, stage photography, sports photography, scientific photography, etc. In addition, in fashion or portrait photography, photographers can capture a series of fast-changing facial expressions and amazing moves, and clearly freeze each fleetingly perfect instant into eternal beauty. Among the benefits you'll enjoy:

- Ultra-speedy charging, 0.05-0.9s recycling time
- Multi-freeze shots, flash duration(t0.1) in high-speed (speed) mode can up to:
220V 600W: 1/ 28984S
220V 400W: 1/ 35086S
110V 600W: 1/ 19606S
110V 400W: 1/ 22988S
- Achieving 1/8000s high-speed sync (with high-speed trigger e.g. X1)
- Up to 10 shots in one second under high-speed continuous shooting
- Exact output control on LED display from 1/128 to 1/1
- High qualified modeling lamp, 150W output adjustable for 20 steps
- Outstanding output stability, less than 2% shifts when under the same output
- High color stability, ranging within ±200k (stable mode) between flashes over the entire power range
- Built-in X1 system (2.4G transmission)
- S1/S2 Optical slave triggering
- Delay function
- Mask function
- High qualified LCD panel

For Your Safety

Before using this product

To prevent damage to the product or injury to you or to others, read the following safety precautions in their entirety before using this equipment. Keep these safety instructions where users can read them for ready reference.

Do not disassemble or modify

There are high-voltage components inside the unit. Failure to observe this precaution could result in electric shock or product malfunction. Should the product break open as the result of a fall or other accident, send the defective back to authorized service center for inspection and maintenance.

Keep dry

Do not handle with wet hands or immerse in or expose to water or rain. Failure to observe this precaution could result in fire or electric shock.

Keep out of the reach of children

This device contains small parts that may pose a choking hazard. Consult a physician immediately if a child swallows any part of this device.

Do not expose to high temperature

Do not leave the device in a closed vehicle under the sun or in other areas subject to extremely high temperature. Failure to observe this precaution could result in fire or damage to the housing or internal parts.

Caution

-  After 100 times continuous shots at full power, the flash should be cooled down for about 10 minutes. Overheating will occur if it is used continuously without cooling down.
-  Do not keep long time in using the modeling lamp, otherwise the modeling lamp will be deformed, and the flammable accessories such as softbox will get burnt. The flash can be used continuously at full power for 10 minutes, and then it should be cooled down for one minute.
-  When using a snoot, do not keep long time the modeling lamp on or over frequent flashlight. Overheating will result in damages for strobe housing and studio light.
-  Do not touch the lamp cap when the flash or modeling lamp is working, as it will give out heat, leading to high surface temperature.
-  Do not touch the two terminals of the tube outlet as there is high voltage inside. Wear insulated gloves when replacing the tube or modeling lamp.
-  Avoid sudden impacts as this can damage the flash tube and/or modeling lamp.
-  Do not flash directly towards naked eyes (especially those of babies), otherwise it may lead to visual impairment.
-  Disconnect from the power supply when it's not in use.

Conventions used in this Manual

- This manual is based on the assumption that both the camera and camera flash's power switches are powered on.
- Reference page numbers are indicated by "p.**".
- The following alert symbols are used in this manual:
 -  The Caution symbol indicates a warning to prevent shooting problem.
 -  The Note symbol gives supplemental information.

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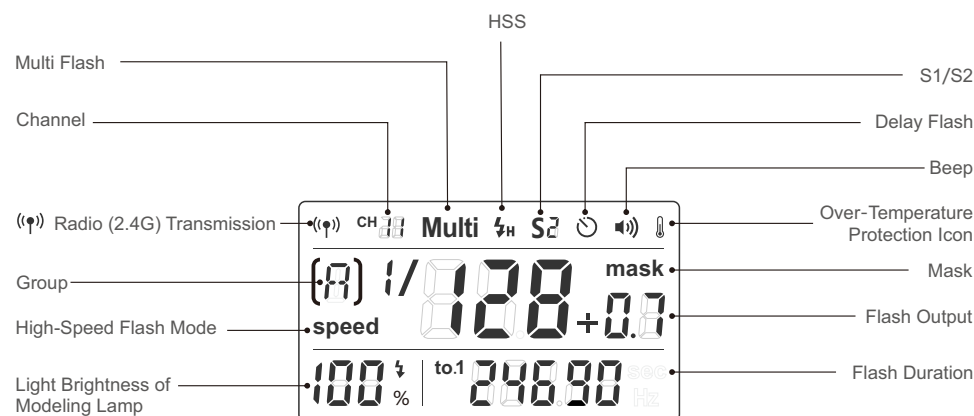
Name of Parts

Body:



Name of Parts

LCD Panel:



Accessories

1. Sync Cord
1. Power Cord
2. Standard Reflector
3. Lamp Cover
4. Glass Protection Cover
5. Modeling Lamp
6. Instruction Manual



Separately Sold Accessories

The product can be used in combination with the following accessories sold separately, so as to achieve best photography effects:

X1 TTL Flash Trigger, Power Inverter, Softbox, Photographic Umbrella, Light Stand, Barndoor, Snoot, etc.



Operations

Flash Preparation

1. Take down the lamp cover. Install the modeling lamp and put on the glass protection cover and the standard reflector. (To uninstall the standard reflector, press the orange release button on the flash head and turn the standard reflector counter-clockwise to take it out, as illustrated in the picture.)



2. Attach the flash unit on an appropriate light stand. Adjust the mounting bracket for a good angle and make sure it's tightened and fixed. Use the direction adjusting handle to adjust the flash on a desired direction. Umbrella input is for different photo umbrellas to put in.

M: Manual Flash

The flash output is adjustable from 1/1 full power to 1/128th power in 0.1 stop increments. To obtain a correct flash exposure, use a hand-held flash meter to determine the required flash output.

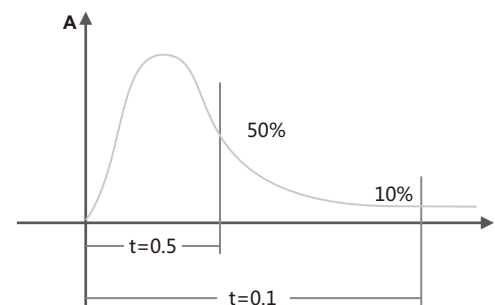


1 Press <MODE> button so that <M> is displayed.

2 Turn the Select Dial to choose a desired flash output amount.

Display Flash Duration

Flash duration refers to the length of time that from flash's firing to reach the half peak at maximum. The half peak at maximum is usually expressed as $t=0.5$. In order to provide the photographer with more concrete data, this product adopts $t=0.1$. The difference between $t=0.5$ and $t=0.1$ is shown in the following picture.



• Flash duration will only be displayed in the M mode.

Stable Color Temperature Mode and High-Speed Flash (speed) Mode

Stable Color Temperature Mode or High-Speed Flash (speed) Mode can be chosen in the C.Fn-F1 setting. These two modes are effective in M/Multi mode and ineffective in high-speed sync mode.

Stable Color Temperature Mode: color temperature ranges within $\pm 200\text{K}$, which is a good choice for the photographers who pursues stable color temperature.

High-Speed Flash (speed) Mode: the max flash duration is up to $t0.1=1/28984$, which is perfect for capturing the fast-changing actions. As the color temperature is a little higher in this mode, please set the camera's white balance parameter to the proportional color temperature amount (see the chart below) or AWB (Auto White Balance).

220V QH600II Prototype Test						
Test Environment	Darkroom					
Color Temperature Test	Equipment	SEKONIC C-700				
	Testing Method	Trigger beyond 2 meters and average the amount of 3 tests.				
Flash Duration (t0.1)	IGBT control the time of turning on the flash					
Stable Color Temperature Mode				High-Speed Flash (speed) Mode		
Parameter Level	Color Temperature CCT(K)	Flash Duration t0.1(S)		Parameter Level	Color Temperature CCT(K)	Flash Duration t0.1(S)
1/128	5729	1/ 4246		1/128	9335	1/ 28984
1/128+0.3	5718	1/ 4166		1/128+0.3	9108	1/ 26666
1/128+0.7	5686	1/ 3920		1/128+0.7	9010	1/ 24690
1/64	5619	1/ 3920		1/64	8535	1/ 22988
1/64+0.3	5635	1/ 3920		1/64+0.3	8205	1/ 20832
1/64+0.7	5657	1/ 3920		1/64+0.7	7698	1/ 18518
1/32	5630	1/ 3920		1/32	7367	1/ 16666
1/32+0.3	5639	1/ 3920		1/32+0.3	7151	1/ 15150
1/32+0.7	5608	1/ 3702		1/32+0.7	6856	1/ 13332
1/16	5620	1/ 3702		1/16	6579	1/ 11904
1/16+0.3	5647	1/ 3702		1/16+0.3	6440	1/ 10582
1/16+0.7	5657	1/ 3702		1/16+0.7	6216	1/ 8888
1/8	5677	1/ 3702		1/8	6126	1/ 7662
1/8+0.3	5674	1/ 3508		1/8+0.3	6072	1/ 6666
1/8+0.7	5610	1/ 2666		1/8+0.7	5954	1/ 5332
1/4	5568	1/ 2298		1/4	5907	1/ 4596
1/4+0.3	5566	1/ 1904		1/4+0.3	5867	1/ 3808
1/4+0.7	5656	1/ 1626		1/4+0.7	5837	1/ 2898
1/2	5646	1/ 1332	1/2	5844	1/ 2222	
1/2+0.3	5681	1/ 1256	1/2+0.3	5738	1/ 1550	
1/2+0.7	5649	1/ 832	1/2+0.7	5636	1/ 832	
1/1	5549	1/ 316	1/1	5539	1/ 316	

220V QH400II Prototype Test

Test Environment	Darkroom	
Color Temperature Test	Equipment	SEKONIC C-700
	Testing Method	Trigger beyond 2 meters and average the amount of 3 tests.
Flash Duration (t0.1)	IGBT control the time of turning on the flash	
Stable Color Temperature Mode		
Parameter Level	Color Temperature CCT(K)	Flash Duration t0.1(S)
1/128	5744	1/ 4938
1/128+0.3	5759	1/ 4694
1/128+0.7	5747	1/ 4444
1/64	5761	1/ 4444
1/64+0.3	5775	1/ 4444
1/64+0.7	5780	1/ 4444
1/32	5753	1/ 4444
1/32+0.3	5771	1/ 4444
1/32+0.7	5754	1/ 4444
1/16	5764	1/ 4444
1/16+0.3	5752	1/ 4444
1/16+0.7	5755	1/ 4444
1/8	5777	1/ 4444
1/8+0.3	5734	1/ 3920
1/8+0.7	5665	1/ 3030
1/4	5604	1/ 2468
1/4+0.3	5621	1/ 2468
1/4+0.7	5626	1/ 2222
1/2	5654	1/ 2082
1/2+0.3	5672	1/ 1514
1/2+0.7	5695	1/ 1148
1/1	5595	1/ 416
High-Speed Flash (speed) Mode		
Parameter Level	Color Temperature CCT(K)	Flash Duration t0.1(S)
1/128	9323	1/ 35086
1/128+0.3	9277	1/ 33332
1/128+0.7	9130	1/ 30302
1/64	8919	1/ 27776
1/64+0.3	8926	1/ 25640
1/64+0.7	8836	1/ 22222
1/32	8432	1/ 20202
1/32+0.3	8183	1/ 18518
1/32+0.7	7784	1/ 16666
1/16	7368	1/ 15150
1/16+0.3	6983	1/ 13332
1/16+0.7	6763	1/ 11494
1/8	6533	1/ 10100
1/8+0.3	6377	1/ 8546
1/8+0.7	6192	1/ 6872
1/4	6061	1/ 5648
1/4+0.3	5957	1/ 4566
1/4+0.7	5840	1/ 3508
1/2	5962	1/ 2656
1/2+0.3	5807	1/ 2014
1/2+0.7	5711	1/ 1148
1/1	5579	1/ 416

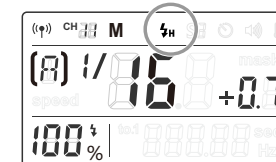
High-Speed Sync

In this mode, you can set the flash output from 1/1 full power to 1/16th power in 0.3 stop increments.

High Speed Sync enables the flash to synchronize with all camera shutter speeds. This is convenient when you want to use aperture priority for fill-flash portraits.



1 Press the <MODE> Button so that <H> is displayed.



2 Turn the Select Dial to set the flash output power.



3 Please use the transmitter of X1 series.

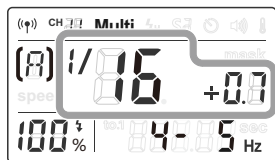
- With high-speed sync, the faster the shutter speed, the shorter the effective flash range.
- Multi flash mode cannot be set in high-speed sync mode.
- With high-speed sync, the color temperature is lower (decrease around 700K) because of tube's characteristics. Please set the camera to AWB (Auto White Balance).

Multi: Stroboscopic Flash

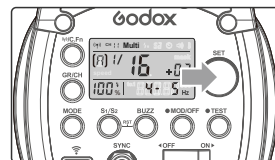
In this mode, you can set the flash output from 1/128th power to 1/8th power in 0.3 stop increments. With stroboscopic flash, a rapid series of flashes is fired. It can be used to capture a multiple images of a moving subject in a single photograph. You can set the firing frequency (number of flashes per sec. expressed as Hz), the number of flashes, and the flash output.



1 Press <MODE> button so that <Multi> is displayed.



2 Turn the Select Dial to choose a desired flash output.



3 Set the flash frequency and flash times.

- Press <SET> Button to select the flash times. Turn the Select Dial to set the number.
- Press <SET> Button to select the flash frequency. Turn the Select Dial to set the number.

Calculating the Shutter Speed

During stroboscopic flash, the shutter remains open until the firing stops. Use the formula below to calculate the shutter speed and set it with the camera.

$$\text{Number of Flashes} / \text{Flash Frequency} = \text{Shutter Speed}$$

For example, if the number of flashes is 10 and the firing frequency is 5 Hz, the shutter speed should be at least 2 seconds.

- Stroboscopic flash is most effective with a highly reflective subject against a dark background.
- Using a tripod and a remote control is recommended.
- A flash output of 1/1 and 1/2 cannot be set for stroboscopic flash.
- If the number of flashes is displayed as "--", the firing will continue until the shutter closes or the battery is exhausted. The number of flashes will be limited as shown by the following table.

Maximum Stroboscopic Flashes:

Flash Output \ Hz	1	2	3	4	5	6-7	8-9	10	11	12-14	15-19	20-30
1/8	7	6	5	4	4	3	3	2	2	2	2	2
1/16(+0.3+0.7)	14	14	12	10	8	6	5	4	4	4	4	4
1/32(+0.3+0.7)	30	30	30	20	20	20	10	8	8	8	8	8
1/64(+0.3+0.7)	60	60	60	50	50	40	30	20	20	20	18	16
1/128(+0.3+0.7)	99	99	90	80	80	70	60	50	40	40	35	30

Wireless Flash Shooting: Radio (2.4G) Transmission

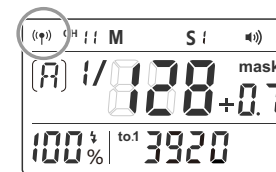
QHII adopts built-in 2.4G wireless X system, which is perfectly compatible with other products of our company. Nikon cameras (using X1T-N, TT685N, etc.) and Canon cameras (using X1T-C, TT685C, etc.) can enjoy one or more QHII together.



*As a slave unit, QHII can be controlled by the master unit e.g. AD360II-C, AD360II-N, TT685C, TT685N, X1T-C, X1T-N, TT600, etc.

Wireless Settings

Press <W/C.Fn> Wireless Button so that <W> is displayed, entering the 2.4G wireless status now.

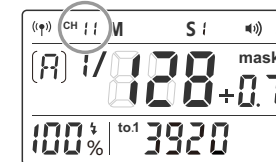


Setting the Communication Channel

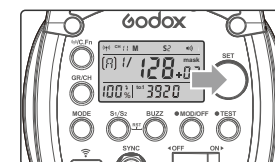
If there are other wireless flash systems nearby, you can change the channel IDs to prevent signal interference. The channel IDs of the master unit and the slave unit(s) must be set to the same.



1 Long press the <GR/CH> Button for 2 seconds until the channel IDs is blinking.



2 Turn the Select Dial to choose the channel from 1 to 32.

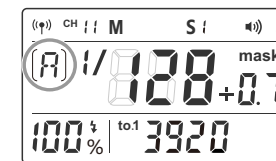


3 Press the <SET> Button to confirm.

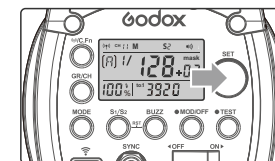
Setting the Communication Group



1 Short press the <GR/CH> Button for 2 seconds until the group IDs is blinking.



2 Turn the Select Dial to choose the group from 0 to F.

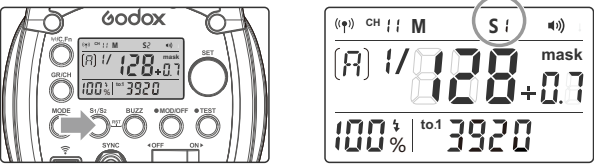


3 Press the <SET> Button to confirm.

Slave Trigger Model

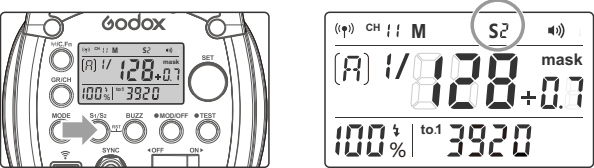
Optical S1 Secondary Unit Setting

In M manual flash mode, press <S1/S2> button so that this flash can function as an Optical S1 secondary flash with Optical sensor. With this function, the flash will fire synchronously when the main flash fires, the same effect as that by the use of radio triggers. This helps create multiple lighting effects.



Optical S2 Secondary Unit Setting

Press <S1/S2> button so that this flash can also function as an Optical S2 secondary flash with Optical sensor in M manual flash mode. This is useful when cameras have pre-flash function. With this function, the flash will ignore a single "preflash" from the main flash and will only fire in response to the second, actual flash from the main unit.



Modeling Lamp

QH11 has a 150W modeling lamp which offers 5% to 100% light adjustment and 2 long lighting modes.

Modeling Lamp's ON/OFF and Settings:

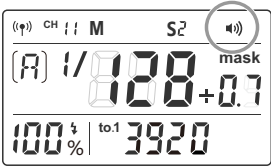
- 1. When the modeling lamp is OFF, short press the Modeling Lamp Button to turn it on;
 - 2. When the modeling lamp is ON, short press the Modeling Lamp Button to setting the light brightness. As the lighting amount is blinking, turn the Select Dial to choose.
- **Turn off the Modeling Lamp**
Long press the Modeling Lamp Button for 2 seconds to turn it off.
 - **Choose the Modeling Lamp's Modes**
 1. Long press the C.Fn Custom Button for 2 seconds until Fn menu is displayed.
 2. Press the SET Button to choose F4.
 3. Turn the Select Dial to choose the Modes:
ON: the modeling lamp will keep this status when triggering;
OFF: the modeling lamp will turn off when triggering;



Buzz Function

The Buzz Button is used to decide whether there is sound reminder for ready flash after recharging. When the buzz indicator is displayed on the LCD panel, it means the sound reminder is turned on; if not displayed, the sound reminder is turned off.

1. A "BI" sound will be heard when it's fully charged.
2. A "BI" sound will be heard when the button and the select dial echo each other.



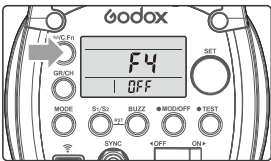
C.Fn Setting Custom Function



- 1 Long press the C.Fn Custom Button for 2 seconds until <Fn> menu is displayed.



- 2 Press the <SET> Button to choose Fn function signs.



- 3 Turn the Select Dial to change the settings. Short press the C.Fn Custom Button to exit.

Custom Function Signs	Function	Setting No.	Settings & Description	Restrictions
F1	Choose high-speed flash	ON	High-Speed Flash (speed) Mode	M/Multi mode
		OFF	Stable Color Temperature	
F2	Delay flash	OFF, 0.01~30S	Trigger as second curtain	M/Multi mode
F3	Mask function	OFF	Mask function is off	M mode
		N1	Mask function is on: when setting 2 times' triggering as a period, the first triggering will fire a flash.	
		N2	Mask function is on: when setting 2 times' triggering as a period, the second triggering will fire a flash.	
F4	Modeling lamp mode	ON	The modeling lamp will not change its status when triggering.	No
		OFF	The modeling lamp will turn off when triggering.	

Other Applications

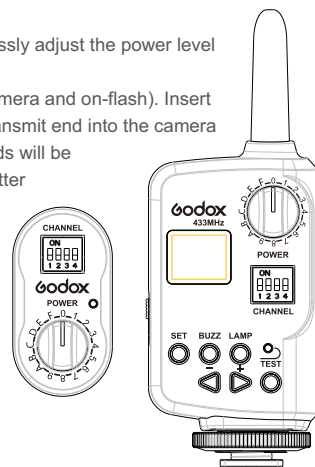
Wireless Control Function

The flash unit is built in with a Wireless Control Port so that you can wirelessly adjust the power level of the flash and the flash triggering.

To control the flash wirelessly, you need a FT-16 remote control set (on-camera and on-flash). Insert its receive end into the Wireless Control Port on the flash and insert the transmit end into the camera hot shoe. Settings made on the hotshoe-mounted transmit and receive ends will be wirelessly communicated to the flash. Then you can press the camera shutter release button to trigger the flash. You can also hold the transmit end at hand to control your off-camera flash.



For full instructions on the use of FT series remote control, see its user manual.



Sync Triggering

The Sync Cord Jack is a $\Phi 6.35\text{mm}$ plug. Insert a trigger plug here and the flash will be fired synchronously with the camera shutter.



Memory Function

The device is equipped with memory function for the panel setting. It will help remember the panel setting 3 second after you set it. When starting up the flash next time, the panel setting will be the same as the status before powering it off.

Tube Replacement

Shut down the power and remove the power cord before replacing the flash tube and wear insulated gloves. Then, loosen the iron wire on the tube, keep a balanced hold on the two feet of the flash tube and pull out the old tube gently. Take down the feet casing from the old tube and put it on the new one. Hold two feet of the new tube, and target directly towards the two copper outlets, then push them slightly in. Twine the iron wire on the stainless steel sheet to fix the flash tube.



Technical Data

Model		QH600II	QH400II
Flash Mode		M/Multi/Hss(high-speed sync)	
Guide Number in 1/1 full power (m ISO 100, using standard reflector)		76	65
Flash Duration (t0.1)	High-Speed Flash (speed) Mode	1/316s - 1/28984s (220V)	1/416s - 1/35086s (220V)
		1/190s - 1/19606s (110V)	1/192s - 1/22988s (110V)
	Stable Color Temperature Mode	1/316s - 1/4246s (220V)	1/416s - 1/4938s (220V)
		1/190s - 1/3766s (110V)	1/192s - 1/3702s (110V)
Color Temperature	Stable Color Temperature Mode	5600±200K	5600±200K
	High-Speed Flash (speed) Mode	5400K-9500K	5400K-9500K
	High-Speed Sync Flash (speed) Mode	4600K-5000K	4600K-5000K
POWER		600WS	400WS
Recycle Time		Approx. 0.05-0.9s	Approx. 0.05-0.7s
Output Level	M	1/128~1/1	
	Hss	1/16~1/1	
	Multi	1/128~1/8	
Multi Flash		Yes (max. flash time:99; max. flash frequency: 30)	
Sync Mode		High-speed sync (up to 1/8000s), first curtain sync, second curtain sync	
Delay Flash		0.01~30s	
MASK Function		✓	
Fan		✓	
Beeper		✓	
Modeling lamp		150W	
Slave Trigger Model		S1/S2	
Display Flash Duration		✓	
Display		High qualified LCD panel	
• Radio (2.4G) Transmission (X system)			
Wireless Function		Slave unit, ON/OFF	
Controllable Slave Units		16 groups: 0~9 , A,B,C,D,E,F	
Transmission Range (approx.)		50m	
Channel		32: 1~32	
Sync Triggering Mode		6.35mm sync cord jack, wireless control port, built-in 2.4G wireless transmission	
Dimension		Flash diameterΦ14CM, height of flash with handle 23CM, length of flash with lamp cover 39CM	
Net Weight		Approx. 3.04Kg	

Maintenance

- Shut down the device immediately when it works abnormally and find out the reason.
- Avoid sudden impacts and the lamp should be dedusted usually.
- It's normal for lamp being warm when in use. Avoid continuous flashes when it is not necessary.
- Maintenance of all the flashes is up to our authorized maintenance department which can provide original accessories. Users can replace the flash tube and modeling lamp provided by the manufacturer.
- One year warranty period will be cancelled when any unauthorized maintenance is found.
- If the product had failures or was wetted, it can be continuously used only after it is repaired by professionals.
- Disconnect the power when doing maintenance work or cleaning.
- New changes made to the specifications or designs may not be updated in this manual.

FCC Warning

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.

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

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the 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.

***RF warning:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.