Godox 神牛

# 迅丽机顶闪光灯
# Thinklite Camera Flash
# TT600S

**INSTRUCTION MANUAL**

**说　明　手　册**

中英文双语 / Chinese English Bilingual

**在使用本产品之前：**

请先仔细阅读本手册，以确保您能安全使用。请保存好本手册以备将来查询参考。

**Before using this product:**

Please read this user manual carefully in order to ensure your safety and the proper operation of this product. Keep for future reference.

# 前言

**感谢您购买神牛产品。**

神牛机顶闪光灯 TT600S 采用神牛无线 X 系统， 内置 2.4G 无线传输，可兼容 AD360II-C、AD360II-N、TT685C、TT685N、X1T-C、X1T-N、X1T-S 等无线控制系统。适用于索尼系列相机。

产品特点突出表现在以下几方面：

- **GN60 (m ISO 100, @200mm), 22 级调光 (1/1~1/128)**
- **内置 2.4G 无线传输**

  收发一体，超远距离，创意无限
- **拓展功能，无限享用**

  高速同步，无线功控，高速频闪，手动辅助对焦
- **光学研究，输出稳定**

  高速连闪输出亮度和色温一致 (5600±200K)，光线均匀分布
- **面板大气，简单快捷**

  高清 LCD 液晶显示屏直观显示，手感良好，操作三步到位

## 安全须知

- ⚠ 请勿让本产品淋雨或受潮，以免发生火灾或触电。
- ⚠ 本产品内部有高压元件，切勿自行拆解或维修。如果接触产品内部的高压电路，可能会发生触电。需要修理时，请送往指定地点进行专业维修。
- ⚠ 在使用过程中，如果本产品由于跌落、受到挤压或遭受强烈冲击而造成外壳破裂的，请勿继续使用，以免因接触到内部电子元件而受到电击伤害。
- ⚠ 请勿在近距离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内造成视力障碍。在使用闪光灯拍摄婴儿时，建议闪光灯距离婴儿至少 1 米以上，也可以使用反射闪光来减少闪光可能对视力造成的伤害。
- ⚠ 请勿在化学品、可燃性气体或其他特殊物质附近使用闪光灯，这些物质在特殊情况下可能对闪光灯发出的瞬间强光敏感，有可能导致火灾或电磁干扰。在这些场合下，请注意相关警告标识。
- ⚠ 请勿将本产品放置在超过 50 摄氏度的环境下，否则可能对元器件造成损坏。
- ⚠ 本产品不能防水，在雨天及潮湿环境下请注意防水。

迅丽
THINKLITE
Electronic Camera Flash

# 迅丽机顶闪光灯
# Thinklite Camera Flash

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。

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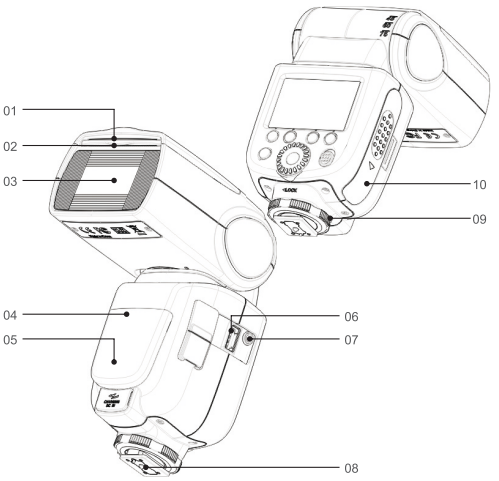
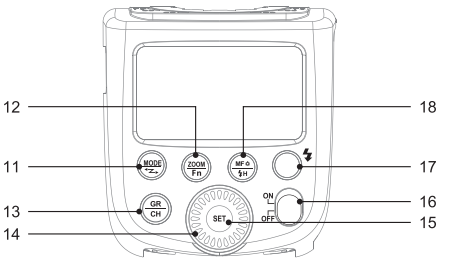
## 部件名称




### ● 机身

01. 眼神光板
02. 内置广角散光板
03. 闪光灯头
04. 无线传感器
05. 辅助对焦灯
06. 无线控制插座
07. 同步插孔
08. 热靴
09. 固定旋钮
10. 电池仓

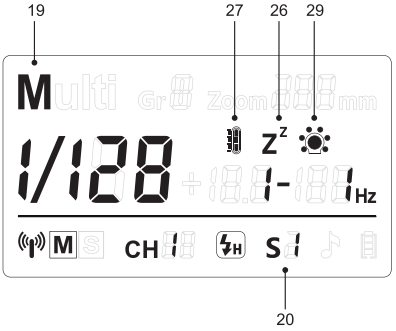


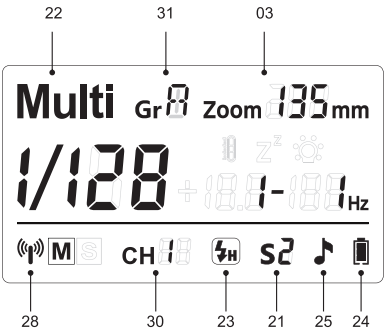

### ● 控制面板

11. < MODE > 闪光模式选择按钮 / 无线模式切换（长按键）
12. < ZOOM Fn > 变焦 / 自定义按钮（长按键）
13. < GR CH > 组别 / 频道设置（长按键）
14. < ◎ > 调节旋钮
15. < SET > 设置按钮
16. ON/OFF 电源开关
17. < ϟ > 试闪按钮 / 回电指示灯
18. < MF $11 > 辅助对焦灯开关 / 高速同步 按钮（长按键）

## 部件名称

### ● LCD 液晶显示屏




19. <**M**> 手动闪光模式
20. <**S1**>S1 防预闪
21. <**S2**>S2 防预闪
22. <**Multi**> 高速频闪
23. < H > 高速同步触发
24. < > 电池电量显示
25. < > 声音提示
26. < z > 休眠状态
27. < > 过热提示
28. < > 无线信号传输
29. < > 对焦灯点亮提示
30. 频道
31. 组别

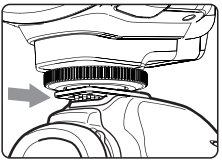
## ● 标配物品

01. 灯体 *1　02. 微型底座 *1　03. 保护包 *1　04. 说明书 *1

## ● 可选购附件

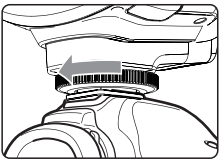
可搭配本公司以下摄影附件使用，以获得最佳的拍摄效果和使用体验：**X1 系列引闪器、赛思 II 高速遥控器、FT-16S 功率遥控器、迷你柔光箱、反光板、车充、蜂巢、色片、束光布**等。

## 装卸闪光灯



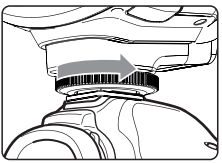
1 安装闪光灯

- 滑动闪光灯固定座使其完全插入相机的热靴插座。



2 拧紧闪光灯

- 旋转固定座上的锁定旋钮，直到锁定闪光灯。



3 取下闪光灯

- 旋转固定座上的锁定旋钮，直到闪光灯解除锁定。

## 使用闪光灯

### 1. 电源管理

ON/OFF 电源开关（16）控制 TT600S 的打开和关闭，长时间不使用时请关闭电源。本产品设计有睡眠功能，在长时间无人操作时，闪光灯会进入睡眠状态。具体睡眠时间设定，请参考后面说明。

### 2. 功率选择

您可以在 1/128 功率至 1/1 全功率间以 1/3 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。旋转调节旋钮 < ◎ > 可以调节闪光输出，调节规则如下：

减小闪光输出指数 ➡

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1/1 | 1/1-0.3 | 1/1-0.7 | 1/2 | 1/2-0.3 | 1/2-0.7 | 1/4 | ... | OF |
| | 1/2+0.7 | 1/2+0.3 | | 1/4+0.7 | 1/4+0.3 | | ... | |

⬅ 增加闪光输出指数

⚠ 当显示屏显示“OF”时，表示闪光无输出，即不能引闪。

### 3. ZOOM: 设置闪光覆盖范围

手动设置闪光覆盖范围以匹配 20-200 毫米的镜头焦距。

按 < ZOOM/SET > 按钮，旋转调节旋钮 < ◎ > 可以更改闪光覆盖范围。

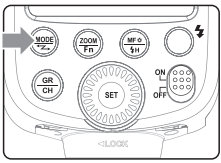
⚠ 设置闪光覆盖范围时，确保其覆盖镜头焦距，这样可以避免照片出现阴影边缘。

### 4. M 普通模式

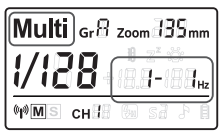
通过按 MODE 模式选择按钮 < MODE >，可以使闪光灯进入 M 模式。在 M 模式下，闪光灯可以安装到相机或触发器热靴上进行引闪。拍摄时您只需要设定闪光输出，调整相机并按下快门，闪光灯会在相机同步信号下进行闪光。此模式下光控关闭。

## 5. Multi 频闪模式

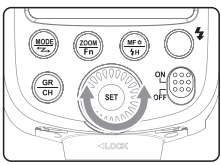
按 MODE 模式选择按钮 < MODE >，可以使闪光灯进入 Multi 模式。Multi 模式下，使用频闪闪光，可以发出一系列快速的闪光。它可以在一张照片上拍摄移动物体的多个图像。您可以设置闪光频率（每秒的闪光次数，以 Hz 表示）、闪光次数和闪光输出。




1 按下 < MODE > 模式选择按钮，屏幕菜单显示“Multi”。




2 按下 < SET > 设置按钮，选择调节项目（闪烁）。




3 旋转调节旋钮 < >，调整数值。

**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。

**闪光次数 / 闪光频率 = 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。

**注：**

- **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、遥控开关。**
- **闪光输出为 1/1 或 1/2 时不能设置频闪闪光。**
- **频闪闪光时也可以使用“buLb”。**

**最大频闪闪光次数**

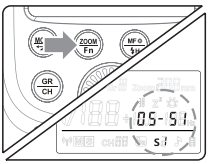
| 闪光输出 \ Hz | 1 | 2 | 3 | 4 | 5 | 6-7 | 8-9 |
|---|---|---|---|---|---|---|---|
| **1/4** | 7 | 6 | 5 | 4 | 4 | 3 | 3 |
| **1/8** | 14 | 14 | 12 | 10 | 8 | 6 | 5 |
| **1/16** | 30 | 30 | 30 | 20 | 20 | 20 | 10 |
| **1/32** | 60 | 60 | 60 | 50 | 50 | 40 | 30 |
| **1/64** | 90 | 90 | 90 | 80 | 80 | 70 | 60 |
| **1/128** | 100 | 100 | 100 | 100 | 100 | 90 | 80 |

**最大频闪闪光次数**

| 闪光输出 \ Hz | 10 | 11 | 12-14 | 15-19 | 20-50 | 60-199 |
|---|---|---|---|---|---|---|
| **1/4** | 2 | 2 | 2 | 2 | 2 | 2 |
| **1/8** | 4 | 4 | 4 | 4 | 4 | 4 |
| **1/16** | 8 | 8 | 8 | 8 | 8 | 8 |
| **1/32** | 20 | 20 | 20 | 18 | 16 | 12 |
| **1/64** | 50 | 40 | 40 | 35 | 30 | 20 |
| **1/128** | 70 | 70 | 60 | 50 | 40 | 40 |

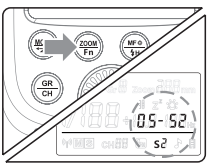
⚠ 为防止闪光灯头在频闪过程中因过热损坏，请勿执行连续 10 次以上的频闪闪光连拍。

## 6. S1 光控模式



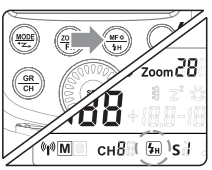

- 通过长按 < ZOOM Fn > 按钮 2 秒进入用户菜单。
- 按 < SET > 按钮选择 OS，通过旋钮 < ◎ > 选择 OFF/S1/S2。在 OS 模式下，闪光灯可作为副灯使用，创造多种照明效果，**适用于手动闪光环境**。它会与主闪光灯的第一次闪光同步触发闪光，效果与使用无线引闪器一致。

## 7. S2 光控模式




- 通过长按 < ZOOM Fn > 按钮 2 秒进入用户菜单，
- 按 < SET > 选择 OS，通过旋钮 < ◎ > 选择 OFF/S1/S2。S2 模式下，可以做副灯使用，**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。

## 8. 高速同步模式




- 长按 < MF ⊙ S1 > 按钮 2 秒可以使闪光灯进入 < ϟH > 模式。
- 如果想退出 < ϟH > 高速同步模式请 按 MODE 模式或者长按 < MF ⊙ S1 > 按钮超过 2 秒。
- 在高速同步模式下，使用高速同步遥控器，您可以实现闪光灯与相机所有快门速度的高速同步，最高可达 1/8000 秒 ( 由相机决定 )。开启高速同步模式，在使用光圈优先对人像进行填充闪光时特别方便。

**注：**

*** 高速同步模式必须配合下列遥控器才可实现其功能。**

**1. 高速同步遥控器（比如神牛收发一体赛思 II 高速遥控器）；**

**2. TTL 无线引闪器 X1C/X1N/X1S**

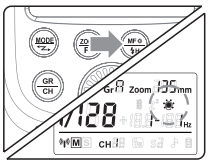
*** TT600S 插在相机热靴上无法实现高速同步功能。**

**神牛收发一体**
**赛思 II 高速遥控器（选配）**

**TTL 无线引闪器**
**X1C/X1N/X1S（选配）**

⚠ 为防止闪光灯头在高速连闪时因过热损坏，连续执行 15 次高速同步闪光后，系统会自动进入热保护，回电时间会比正常延时 10 秒。

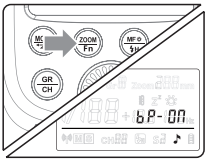
## 9. 对焦灯自定义功能



- 在低照度或低对比度等相机无法自动对焦情况下，通过按 <（MF）> 按钮，可以点亮对焦灯，协助相机进行对焦。
- 无引闪时，辅助对焦灯数秒后会自动熄灭，从最后一次引闪到对焦灯自动熄灭之间的时间，用户可自行设置，出厂默认为 10 秒。
- 通过长按 <（ZOOM/Fn）> 按钮 2 秒，可以进入自定义设置状态；按 SET 按键进入“FC”调整状态，液晶屏显示“FC”（FC 表示无引闪后，辅助对焦灯会自动关闭）；拨动调节旋钮 <（◎）> 调节对焦时间；按 <（ZOOM/Fn）> 按钮返回到上一层。

| 对焦辅助自动关闭时间设置 | 意 义 |
|---|---|
| 10 秒 | 无引闪时，离最后一次引闪 10 秒后辅助对焦灯自动熄灭。 |
| 20 秒 | 无引闪时，离最后一次引闪 20 秒后辅助对焦灯自动熄灭。 |
| 30 秒 | 无引闪时，离最后一次引闪 30 秒后辅助对焦灯自动熄灭。 |

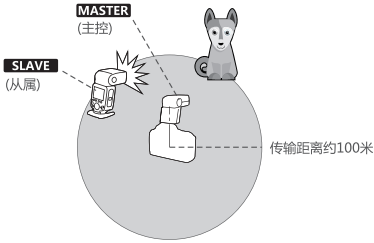
## 10. 蜂鸣控制




- 本机带有蜂鸣功能，通过长按 <（ZOOM/Fn）> 按钮 2 秒，可以进入自定义设置状态；按 SET 按键进入“bp”调整状态。
  ON：开蜂鸣，OF：关蜂鸣
- 蜂鸣器处于打开状态时，显示屏的 <（♪）> 符号会显示。

## 11. 无线闪光拍摄：无线电 (2.4G) 传输

- TT600S 是具有无线电传输无线拍摄功能的闪光灯 ( 主控 / 从属 )，轻松利用高级无线多重闪光照明进行拍摄。
- 无线模式设置 : 通过长按 < MODE > 按钮 2 秒直至 < (( )) > 图标闪烁，此时通过旋钮设定 OFF/Master(M)/Slave(S) 模式。
- 频道设置：通过长按 < ON/OFF > 按钮 2 秒直至 CH 旁数值闪烁，此时可通过旋钮设定频道 1~32。
- 组别设置：通过短按 < ON/OFF > 按钮设置组别，
  在 Master 模式有：M/A/B/C/D/E, 在 Slave 模式有：A/B/C/D/E。
- TT600S 采用神牛无线 X 系统，可兼容 AD360II-C、AD360II-N、 TT685C、TT685N、X1T-C、X1T-N、X1T-S 无线控制。
- 无线图片示意 :




## 12. 无线控制功能

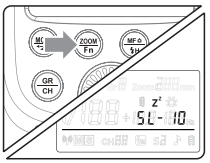
- 闪光灯内置无线控制插座 (6), 配合特定遥控器使用，您可以实现对闪光灯的无线控制。
- 将神牛 FT 系列遥控器的接收端插入无线控制插座 (6)，手持遥控器发射端，即可远程控制闪光灯的功率开关和大小、辅助对焦灯开关、蜂鸣器开关、闪光灯触发等。您也可以将发射端置于相机热靴上，通过相机快门来进行同步引闪。

● 更多遥控器的使用方法，请查阅 FT 系列遥控器的说明书。

## 13. 同步插孔触发

同步插孔 (7) 规格为 Φ3.5mm，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。

## 14. 睡眠时间自定义功能




- 本产品设计有睡眠功能，可避免长时间不操作消耗电池电量。
- 通过长按 < ZOOM Fn > 按钮 2 秒，可以进入自定义设置状态，液晶屏显示“SL”(Sleep 表示睡眠 ) 和“睡眠时间”，本产品出厂模式 睡眠时间设置为 10 分钟，拨动调节旋钮 < ◎ > 即可更改睡眠时间或关闭睡眠功能。按 < ZOOM Fn > 按钮返回到上一层。

| 睡眠时间设置 | 意 义 |
|---|---|
| OF | 表示睡眠功能已关闭，闪光灯不会自动休眠。 |
| 3 | 睡眠时间设置为 3 分钟。 |
| 10 | 睡眠时间设置为 10 分钟。 |
| 30 | 睡眠时间设置为 30 分钟。 |
| 60 | 睡眠时间设置为 60 分钟。 |

- 当闪光灯进入睡眠状态时，显示屏将出现“$z^z$”符号。
- 要唤醒闪光灯，可以按下闪光灯任意键，或者按下相机快门，或者按下触发器的试闪按钮。

**注：**

*** 无特殊需要时，请设置短的睡眠时间，可以延长闪光灯的工作时间！**

## 15. C.Fn 自定义功能

| 符号 | 功能 | 设置与说明 | 操作说明 |
|---|---|---|---|
| SL | 睡眠时间设置 | 可设置时间：<br><3> 3 分钟<br><10> 10 分钟<br><30> 30 分钟<br><60> 60 分钟<br><OF> 无 (OFF) | 1. 按 < ZOOM Fn > 按钮进入自定义设置状态；<br>2. 旋转 < ◎ > 调节旋钮调节睡眠时间；<br>3. 按 < ZOOM Fn > 按钮返回。<br>* 按任意按钮可唤醒；<br>* 无需要时请设置短的睡眠时间，这可以延长闪光灯的工作时间！ |
| FC | 对焦辅助自动关闭时间设置 | <10> 10 秒<br><20> 20 秒<br><30> 30 秒 | 1. 按 < ZOOM Fn > 按钮进入自定义设置状态；<br>2. 按 < SET > 按钮进入 “FC” 调整状态；<br>3. 旋转 < ◎ > 调节旋钮可调节；<br>4. 按 < ZOOM Fn > 按钮返回。 |
| bp | 蜂鸣器功能设置 | <ON> 开 On<br><OF> 关 off | 1. 按 < ZOOM Fn > 按钮进入自定义设置状态；<br>2. 按 < SET > 按钮进入 “bp” 调整状态；<br>3. 旋转 < ◎ > 调节旋钮可调节；<br>4 . 按 < ZOOM Fn > 按钮返回。 |
| bL | 背光设置 | 当操作按钮时，背光点亮可设置为：<br><ON>：<br>持续点亮<br><12>：<br>点亮 12 秒<br><OF>：熄灭 | 1. 按 < ZOOM Fn > 按钮进入自定义设置状态；<br>2. 按 < SET > 按钮进入 “bL” 调整状态；<br>3. 旋转 < ◎ > 调节旋钮可调节；<br>4. 按 < ZOOM Fn > 按钮返回。 |
| OS | 光接收模式 | <OF> 关闭<br><S1> S1 模式<br><S2> S2 模式 | 1. 按 < ZOOM Fn > 按钮进入自定义设置状态；<br>2. 按 < SET > 按钮进入 “OS” 调整状态；<br>3. 旋转 < ◎ > 调节旋钮可调节；<br>4. 按 < ZOOM Fn > 按钮返回。 |

## 保护功能

### 1. 热保护

- 为防止闪光灯头过热并损坏，请勿在 1/1 功率时进行超过 30 次的快速连续闪光。30 次连续闪光后，要让闪光灯至少冷却 10 分钟。
- 如您在进行超过 30 次连续闪光后马上继续进行更多次闪光，内部的防过热功能可能会被激活，使充电时间变为 10 至 15 秒。如果发生这种现象，请让闪光灯冷却约 10 分钟，闪光灯便会恢复正常。
- 热保护启动后，显示屏上 < 引 > 的符号会显示。

**激活热保护功能的连续闪光次数：**

| 功 率 | 次 数 |
|---|---|
| 1/1 | 30 |
| 1/2 +0.7 | 40 |
| 1/2 +0.3 | 50 |
| 1/2 | 60 |
| 1/4 ( +0.3,+0.7 ) | 100 |
| 1/8 ( +0.3,+0.7 ) | 200 |
| 1/16 ( +0.3,+0.7 ) | 300 |
| 1/32 ( +0.3,+0.7 ) | 500 |
| 1/64 ( +0.3,+0.7 ) | 1000 |
| 1/128 ( +0.3,+0.7 ) | |

**高速同步模式下，激活热保护功能的连续闪光次数：**

| 功 率 | 次 数 |
|---|---|
| 1/1 | 15 |
| 1/2 ( +0.3,+0.7 ) ; | 20 |
| 1/4 ( +0.3,+0.7 ) | 30 |
| 1/8 ( +0.3,+0.7 ) ; | |
| 1/16 ( +0.3,+0.7 ) | 40 |
| 1/32 ( +0.3,+0.7 ) ; | |
| 1/64 ( +0.3,+0.7 ) ; | 50 |
| 1/128 ( +0.3,+0.7 ) ; | |

### 2. 其他保护

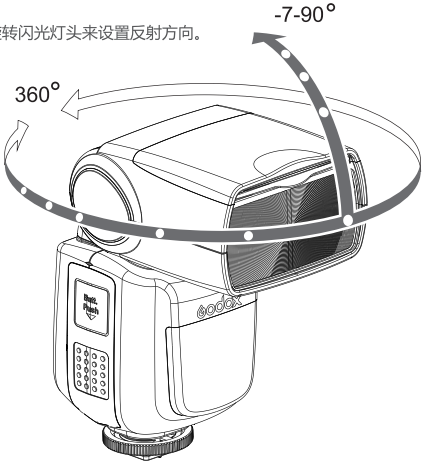
为了保证设备安全的工作，系统时刻进行预防保护，以下提示符号供您参考：

| LCD 显示 | 警示内容 |
|---|---|
| E0 | 设备内部温度传感器有问题，请维修 |
| E1 | 闪光灯回电系统出现问题，无法回电引闪，<br>请重新开机，如无法解决请维修 |
| E2 | 设备内温度过高，请停止引闪 10 分钟 |
| E3 | 闪光灯管两端电压过高，请维修 |

## ● 反射闪光

通过将闪光灯头指向墙壁或天花板，闪光在照亮被摄体前被墙面反射。这可以减轻被摄物体背后的阴影，获得更自然的摄影效果。称之为反射闪光。

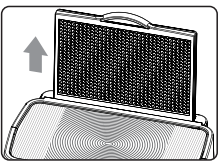
旋转闪光灯头来设置反射方向。




- 如果墙壁或天花板太远，反射闪光可能太弱并导致曝光不足。
- 墙壁或天花板应该是平坦的、白色的以利于高效的反射。如果反射表面不是白色的，照片将出现偏色。

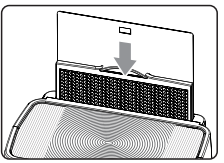
## ● 创造眼神光

使用眼神光板，可以在被摄体的眼睛中创造眼神光以使面部表情更加生动。



1 将闪光灯头向上旋转 90°。

2 拉出广角散光板，同时弹出眼神光板。



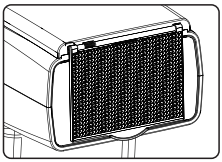
3 推入广角散光板。
- 仅推入广角散光板。
- 按照反射闪光中相同的步骤进行。

- 请将闪光灯头向前指然后向上旋转 90 度。如果左右旋转闪光灯头就不会产生眼神光。
- 要获得最好的眼神光效果，被摄体不能处于相机 1.5 米 /4.9 英尺以内。

## 拍摄技巧

### ● 使用广角散光板

拉出广角散光板并将其置于闪光灯头上，使闪光范围扩大，闪光效果将更加柔和自然。



- 拉出广角散光板并将其置于闪光灯头上。闪光覆盖范围将扩展至 14 毫米。
- 同时弹出眼神光板。请推回眼神光板。

## 规格参数

| 单灯型号 | TT600S |
|---|---|
| 闪光指数<br>（1/1 档位；200mm 焦距） | GN 60 (m ISO 100) |
| 上下旋转角度 | -7° -90° |
| 左右旋转角度 | 0-360° |
| 电源 | 镍氢电池（推荐）<br>或 LR6 类型碱性电池 *4 节 |
| 全功率闪光次数 | 约 230 次（2500mA 镍氢电池） |
| 回电时间 | 约 0.1-2.6 秒（松下 eneloop 镍氢电池），闪光灯准备就绪，LED 红色指示灯亮起 |
| 闪光持续时间 | 1/300 秒 - 1/20000 秒 |
| 色温 | 5600K±200K |
| 无线功能 | 主控单元，从属单元，关闭 |
| 可控制从属单元组 | 5 组：A，B，C，D，E |
| 无线距离 | 100m |
| 频道 | 1~32 |
| 体积 | 64 *76*190 mm |
| 净重（不含电池） | 400g |
| 含电池重量 | 500g |

## 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.**

TT600S camera flash adopts Godox wireless X system and 2.4G ratio transmission, which is compatible with AD360II-C, AD360II-N, TT685C, TT685N, X1T-C, X1T-N, X1T-S, etc. Fit all Sony series cameras.

This TT600S camera flash features:

- GN60 (m ISO 100, @200mm). Adjust from 1/1 to 1/128 in 1/3rd stops
- Built-in 2.4G wireless transmission to support transmitting and receiving
- High speed sync, wireless remote control, multi flash and manual focus assist
- Stable consistency and color temperature with good even lighting
- User-friendly LCD display & control panel

## For Your Safety

- ⚠ • Always keep this product dry. Do not use in rain or in damp conditions.
- ⚠ • This product contains high-voltage electronic parts. Touching the high-voltage circuit inside it may result in electric shock. Do not disassemble. Should repairs become necessary, this product must be sent to an authorized maintenance center.
- ⚠ • Stop using this product if it breaks open due to extrusion, falling or strong hit. Otherwise, electric shock may occur if you touch the electronic parts inside it.
- ⚠ • Do not fire the flash directly into the eyes (especially those of babies) within short distances. Otherwise visual impairment may occur. When taking pictures for babies, keep the flash unit at least 1 meter (3.3 feet) away from them. Using bounce flash to reduce light intensity is also recommended.
- ⚠ • Do not use the flash unit in the presence of flammable gases, chemicals and other similar materials. In certain circumstances, these materials may be sensitive to the strong light emitting from this flash unit and fire or electromagnetic interference may result.
- ⚠ • Do not leave or store the flash unit in places where the ambient temperature reads over 50°C (e.g. in automobile). Otherwise the electronic parts may be damaged.

THINKLITE

Electronic Camera Flash

## Thinklite Camera Flash

**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 gives supplemental information.

The Note symbol indicates a warning to prevent shooting problem.

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Wireless Control Function

Sync Triggering

Custom Function----Sleep Function

C.Fn Setting Custom Functions

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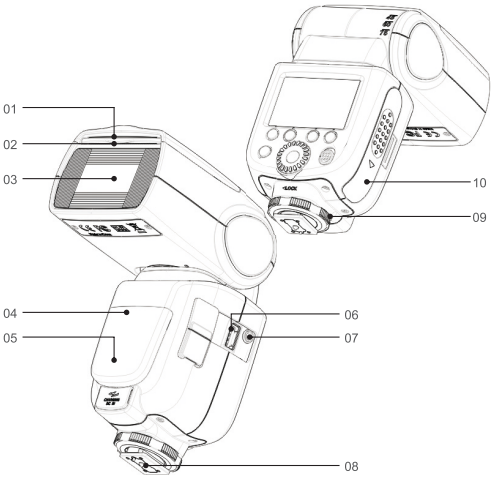
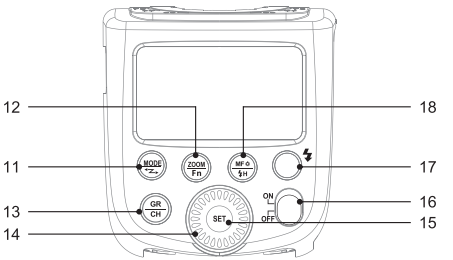
# Name of Parts




**● Body**

01. Catchlight Panel
02. Built-In Wide Panel (Retracted)
03. Flash Head
04. Optic Control Sensor
05. Focus Assist Beam
06. Wireless Control Port
07. Sync Cord Jack
08. Hotshoe
09. Lock Ring
10. Battery Compartment

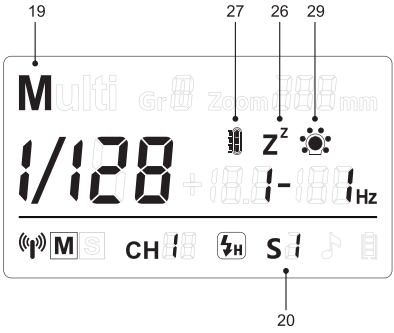


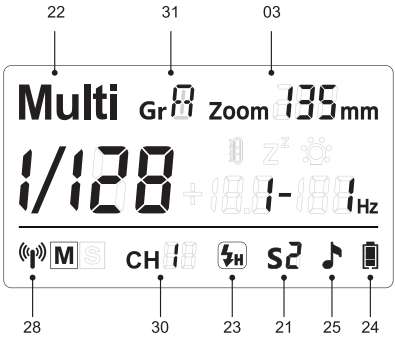

**● Control Panel**

11. <MODE>Mode Selection Button/ Wireless Mode Selection (Long Keypress)
12. <ZOOM Fn>Zoom / Function Custom Button (Long Keypress)
13. <GR CH>Group/ Channel Setting (Long Keypress)
14. <>Select Dial
15. <SET> Set Button
16. ON/OFF Power Switch
17. <>Test Button / Flash Ready Indicator
18. <MF>Focus Assist Beam / High Speed Sync Button (Long Keypress)

## Name of Parts

- **LCD Panel**




19. <**M**>Manual Flash Mode
20. <**S1**>S1 Slave Flash Triggering
21. <**S2**>S2 Slave Flash Triggering
22. <**Multi**>Multi/Stroboscopic Flash Mode
23. <H>High Speed Sync Triggering
24. < > Battery Level Indication
25. < > Sound Beep Indication
26. <Z>Sleep Status
27. < >Overtemperature Indication
28. <>Wireless Signal Transmission
29. <>Focus Assist Beam Indicator
30. Channel
31. Group

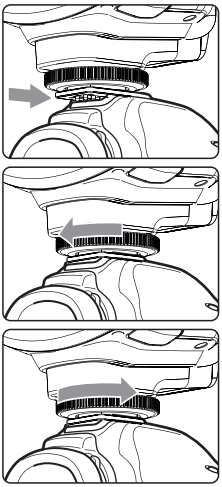
## ● What's in the Box of TT600S?

1. Flash unit
2. Mini stand
3. Protection case
4. 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 wireless flash trigger, Cells II high speed trigger, FT-16S power & trigger control, Car charger, Mini softbox, White & Silver Reflector, Honeycomb, Color gels, Snoot,** etc.

## Attaching to a Camera



**1 Attach the Camera Flash.**
- Slip the camera flash's mounting foot into the camera's hotshoe all the way.

**2 Secure the Camera Flash.**
- Rotate the locking screw on the mounting foot until it locks up.

**3 Detach the Camera Flash.**
- Rotate the locking screw on the mounting foot until it is loosened.

## Using the Flash

### 1.Power Management

Use ON/OFF Power Switch to power the flash unit on or off. Turn off if it will not be used for an extended period of time. This flash unit has Sleep Function and will enter into sleep status when there is no operation for a long time. For Sleep Function setting, see the following instruction.

### 2.Flash Output

- Flash output can be varied from 1/128th power to 1/1 full power in 1/3 stop increments. To obtain a correct flash exposure, use a hand-held flash meter to determine the required flash output.
- Adjust the power output by rotating Select Dial . The following table makes it easier to see how the stop changes in terms off/ stop when you increase or decrease the flash output:

Figures displayed when reducing flash output level ➡

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1/1 | 1/1-0.3 | 1/1-0.7 | 1/2 | 1/2-0.3 | 1/2-0.7 | 1/4 | ... | OF |
| | 1/2+0.7 | 1/2+0.3 | | 1/4+0.7 | 1/4+0.3 | | ... | |

⬅ Figures displayed when increasing flash output level

⚠ When "OF" is shown on the LCD display, it means no flash output and flash firing is turned off.

### 3. ZOOM: Setting the Flash Coverage

The flash coverage can be set to match the lens focal length from 20 mm to 200 mm. Press <ZOOM Fn> button and rotate Select Dial <◎> to change the flash coverage.

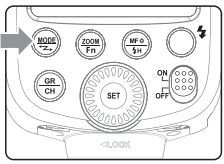
⚠ When setting the flash coverage, make sure it covers the lens focal length so that the picture will not have a dark periphery.

## 4. M Mode: Manual Mode

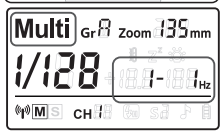
Press MODE Selection Button <MODE> to enter M mode. In this mode, you can set the flash unit onto your camera hot shoe or your trigger hot shoe for firing. Before shooting, adjust the flash power output. When the camera's shutter is pressed, the flash will fire synchronously. Slave triggering mode is not available in M mode.

## 5. Multi Mode: Stroboscopic Flash

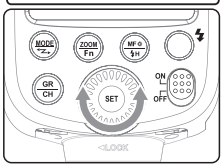
Press Mode Selection Button <MODE> to enter Multi mode (Stroboscopic flash). With stroboscopic flash, a rapid series of flashes is fired. It can be used to capture multiple images of a moving subject in a single photograph. You can set the firing frequency (number of flashes per sec. expressed as Hz), the number of flashes, and the flash output. For setting procedures, see the following:




1 Press the Mode Selection Button <MODE> so that "Multi" is displayed.




2 Press Set Button <SET> to select the item to be set. The item blinks.




3 Rotate Select Dial <> to set a desired number.

### Calculating the Shutter Speed

During stroboscopic flash, the shutter remains open until the firing stops. Use the provided formula to calculate the shutter speed required to capture the full sequence of flashes:

**Number of flashes / Firing frequency = 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 sec.

**Note:**

- **Stroboscopic flash is most effective with a highly reflective subject against a dark background.**
- **Using a tripod and a remote switch is recommended.**
- **A flash output of 1/1 or 1/2 cannot be set for stroboscopic flash.**
- **Stroboscopic flash can be used with "buLb".**

# Using the Flash

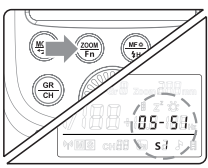
**Maximum Stroboscopic Flashes :**

| Hz / Flash Output | 1 | 2 | 3 | 4 | 5 | 6-7 | 8-9 |
|---|---|---|---|---|---|---|---|
| **1/4** | 7 | 6 | 5 | 4 | 4 | 3 | 3 |
| **1/8** | 14 | 14 | 12 | 10 | 8 | 6 | 5 |
| **1/16** | 30 | 30 | 30 | 20 | 20 | 20 | 10 |
| **1/32** | 60 | 60 | 60 | 50 | 50 | 40 | 30 |
| **1/64** | 90 | 90 | 90 | 80 | 80 | 70 | 60 |
| **1/128** | 100 | 100 | 100 | 100 | 100 | 90 | 80 |

| Hz / Flash Output | 10 | 11 | 12-14 | 15-19 | 20-50 | 60-199 |
|---|---|---|---|---|---|---|
| **1/4** | 2 | 2 | 2 | 2 | 2 | 2 |
| **1/8** | 4 | 4 | 4 | 4 | 4 | 4 |
| **1/16** | 8 | 8 | 8 | 8 | 8 | 8 |
| **1/32** | 20 | 20 | 20 | 18 | 16 | 12 |
| **1/64** | 50 | 40 | 40 | 35 | 30 | 20 |
| **1/128** | 70 | 70 | 60 | 50 | 40 | 40 |

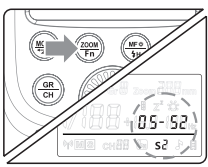
⚠ To avoid overheating and deteriorating the flash head during stroboscopic flash, do not use stroboscopic flash more than 10 times in succession.

## 6. S1 Mode: S1 Slave Triggering Mode




- Long Press <ZOOM Fn> button for 2 seconds to enter the custom menu and press <SET> Button to choose OS. Then, turn the Select Dial to choose OFF/S1/S2.
- In S1 mode, the flash unit can function as a slave flash for creating multiple lighting effects. It is respectively applicable to manual flash environment.
- In S1 mode, the flash unit will fire synchronously when the master flash fires, the same effect as that by the use of radio triggers.

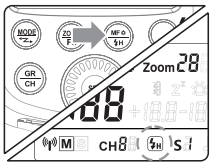
## 7. S2 Mode: S2 Slave Triggering Mode




- Long Press <ZOOM Fn> button for 2 seconds to enter the custom menu and press <SET>Button to choose OS. Then, turn the Select Dial to choose OFF/S1/S2.

- In S2 mode, the flash unit can function as a slave flash for creating multiple lighting effects. It is applicable when using a TTL master flash.
- In S2 mode, the flash unit will ignore a single “preflash” from the master flash and will only fire in response to the second, actual flash from the master.

## 8. Hi-Speed Sync Triggering




- To enter mode, long press <> button and hold for 2 seconds.
- To exit mode, press Mode Selection Button or long press <> button and hold for 2 seconds again.
- In <> hi-speed sync triggering mode, you can use a hi-speed sync trigger to have your flash unit synchronized with all shutter speeds of cameras (max. 1/8000 second, up to your camera). This is convenient when you want to use aperture priority for fill-flash portraits.

**Note:**

***Hi-speed sync triggering mode is effective only when the flash unit is used together with the following flash triggers.**

**1. Hi-speed sync trigger, e.g., Godox Cells II transceiver.**

**2. TTL wireless flash trigger X1C/X1C/X1S**

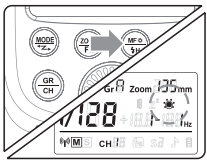
***Hi-speed sync triggering mode is not available when TT600S is mounted onto the camera.**

Godox Cells II transceiver (Optional)

TTL wireless flash trigger X1C /X1N/X1S(Optional)

⚠ To avoid overheating or deteriorating the flash head during high speed sync flash, the over-temperature protection function will be activated automatically after 10 continuous high-speed flashes and the ecycle time becomes 10 seconds longer.

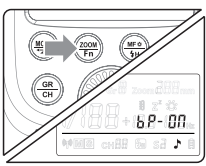
## 9. Custom Function--Focus Assist Lamp



- Under poorly-lit or low-contrast conditions, you can press <MF 0.5H> button to turn on the focus assist beam in order to make it easier to autofocus.
- The beam will automatically put out certain seconds after the last pop is fired. The time between the last fire and the auto shutdown of focus assist beam is called No-Flash Time. The time is user adjustable and set to 10 seconds by default.
- Press <ZOOM Fn> button and hold for 2 seconds to enter Custom Function. Then press “SET” button to enter “FC” mode. The LCD panel displays “FC” (Auto shutdown of focus assist lamp) and “No-Flash Time”. Rotate Select Dial <◎> to set a desired time for the flash. Press <ZOOM Fn> button to return.

| No-Flash Time | Meaning |
|---|---|
| 10 seconds | 10 seconds after the last fire, focus assist lamp will automatically get out. |
| 20 seconds | 20 seconds after the last fire, focus assist lamp will automatically get out. |
| 30 seconds | 30 seconds after the last fire, focus assist lamp will automatically get out. |

## 10. Buzz Function



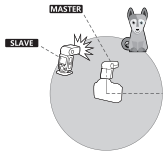

- To turn the buzz function on or off, press <ZOOM Fn> button and hold for 2 seconds to enter Custom Function.
- Then press “SET” button to enter “bp” mode. The LCD displays“ON”means buzz is turned on while “OF” means buzz is turned off.
- When the buzzer is turned on, <♪>is shown on the LCD display.

## 11. Wireless Flash Shooting: Ratio (2.4G) Transmission

- TT600S has 2.4G ratio transmission (Master/Slave)
- Wireless mode setting: Long press < ZOOM Fn > button and hold for 2 seconds until<((•))> icon is blinking. Turn the Select Dial to set from OFF/Master(M)/Slave(S) mode.
- Channel setting: Long press <GR CH> button and hold for 2 seconds until the figure besides the CH is blinking. Turn the Select Dial to choose the channel from 1~32.
- Group setting: Short press <GR CH> button to select group. In

Master mode, groups can be selected from M/A/B/C/D/E; while in Slave mode, groups can be selected from A/B/C/D/E.

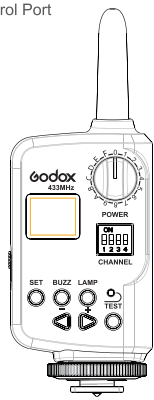
- As TT600S adopts Godox wireless X system, it is compatible with AD360II-C, AD360II-N, TT685C, TT685N, X1T-C, X1T-N, X1T-S wireless control, etc.
- See the picture below:




Transmission distance is about 100 meters

## 12. Wireless Control Function

- The flash unit is built in with a Wireless Control Port (6) so that you can wirelessly adjust the power level of the flash and control the on-or-off of your flash, focus assist beam and buzzer, as well as trigger the flash.
- To control the flash wirelessly, you need a Godox FT series remote control set (on-camera and on-flash). Insert its receive end into the Wireless Control Port (6) 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.

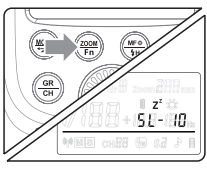



● For full instructions on the use of FT series remote control, see its user manual.

## 13.Sync Triggering

The Sync Cord Jack (7) is a Φ3.5mm plug. Insert a trigger plug here and the flash will be fired synchronously with the camera shutter.

## 14. Custom Function----Sleep Function




- This product is equipped with Sleep Function to avoid battery drain when the flash unit is idle.
- Press <ZOOM Fn> button and hold for 2 seconds to enter the sleep Function Mode. The LCD panel displays “SL” (Sleep) and “Sleeping Time”. Idle time before entering Sleep Mode is 10 minutes by default. Rotate Select Dial

## Using the Flash

to set a desired time for the flash or to turn off Sleep Function.

to set a desired time for the flash or to turn off Sleep Function.

Press < > button to return. Press < > button to return.

| Idle Time | Meaning |
|---|---|
| OF | Sleep Function is turned off. The flash unit will not automatically enter sleep mode. |
| 3 | Idle time before entering Sleep Mode is set to 3 minutes. |
| 10 | Idle time before entering Sleep Mode is set to 10 minutes. |
| 30 | Idle time before entering Sleep Mode is set to 30 minutes. |
| 60 | Idle time before entering Sleep Mode is set to 60 minutes. |

- When the flash enters sleep mode, the LCD panel displays a "**Z**" icon.
- To wake up the flash unit, press any button on the flash unit, or press the camera release button, or press the trigger TEST button.

**Note:**
**The idle time before entering Sleep Mode is recommended to set short. This can ensure a longer battery life.**

## 15. C.Fn Setting Custom Functions

| Custom Function Signs | Function | Settings & Description | Operation |
|---|---|---|---|
| SL | Sleeping Time Setting | Settable Time:<br><3> 3 minutes<br><10> 10 minutes<br><30> 30 minutes<br><60> 60 minutes<br><OF> ( OFF ) | 1. Press < > button to enter Custom Functions.<br>2. Turn the Select Dial < > to adjust sleeping time.<br>3. Press < > button to return.<br>*Press any button can wake up the flash. * The idle time before entering Sleep Mode is recommended to set short. This can ensure a longer battery life. |

## Using the Flash

| Custom Function Signs | Function | Settings & Description | Operation |
|---|---|---|---|
| FC | Auto Power OFF Time Setting of Auto Focus Assist | <10>10 seconds<br><20>20 seconds<br><30>30 seconds | 1. Press < ZOOM Fn > button to enter Custom Functions.<br>2. Press < SET > button to enter FC states.<br>3. Turn the Select Dial < > to adjust.<br>4. Press < ZOOM Fn > button to return. |
| bp | Buzz Setting | <ON> On<br><OF> Off | 1. Press < ZOOM Fn > button to enter Custom Functions.<br>2. Press < SET > button to enter bp states.<br>3. Turn the Select Dial < > to adjust.<br>4. Press < ZOOM Fn > button to return. |
| bL | Backlight Setting | Backlight can be set as follows :<br><ON> :<br>Always lighting<br><12> :<br>Off in 12 sec.<br><OF> : Off | 1. Press < ZOOM Fn > button to enter Custom Functions.<br>2. Press < SET > button to enter bL states.<br>3. Turn the Select Dial < > to adjust.<br>4. Press < ZOOM Fn > button to return. |
| OS | Optic Slave Mode | <OF> Off<br><S1> S1 mode<br><S2> S2 mode | 1. Press < ZOOM Fn > button to enter Custom Functions.<br>2. Press < SET > button to enter OS states.<br>3. Turn the Select Dial < > to adjust.<br>4. Press < ZOOM Fn > button to return. |

# Protection Function

## 1. Over-Temperature Protection

- To avoid overheating and deteriorating the flash head, do not fire more than 30 continuous flashes in fast succession at 1/1 full power. After 30 continuous flashes, allow a rest time of at least 10 minutes.
- If you fire more than 30 continuous flashes and then fire more flashes in short intervals, the inner over-temperature protection function may be activated and make the recycling time about 10 to 15 seconds. If this occurs, allow a rest time of about 10 minutes, and the flash unit will then return to normal.
- When the over-temperature protection is started, is shown on the LCD display.

**Number of flashes that will activate over-temperature protection:**

| Power Output Level | Number of Flashes |
|---|---|
| 1/1 | 30 |
| 1/2 +0.7 | 40 |
| 1/2 +0.3 | 50 |
| 1/2 | 60 |
| 1/4 ( +0.3,+0.7 ) | 100 |
| 1/8 ( +0.3,+0.7 ) | 200 |
| 1/16 ( +0.3,+0.7 ) | 300 |
| 1/32 ( +0.3,+0.7 ) | 500 |
| 1/64 ( +0.3,+0.7 ) | 1000 |
| 1/128 ( +0.3,+0.7 ) | |

**Number of flashes that will activate over-temperature protection in high-speed sync mode:**

| Power Output Level | Number of Flashes |
|---|---|
| 1/1 | 15 |
| 1/2 ( +0.3,+0.7 ) | 20 |
| 1/4 ( +0.3,+0.7 ) | 30 |
| 1/8 ( +0.3,+0.7 ) | |
| 1/16 ( +0.3,+0.7 ) | 40 |
| 1/32 ( +0.3,+0.7 ) | |
| 1/64 ( +0.3,+0.7 ) | 50 |
| 1/128 ( +0.3,+0.7 ) | |

# Protection Function

## 2. Other Protections

The system provides real-time protection to secure the device and your safety. The following lists prompts for your reference:

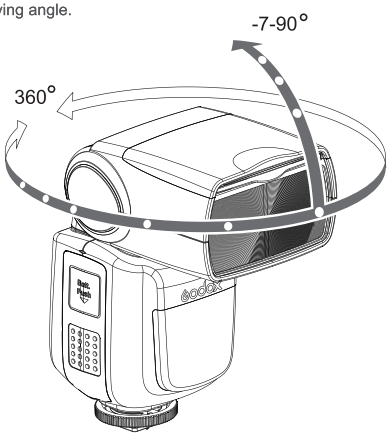
| Prompts on LCD Panel | Meaning |
|---|---|
| E0 | A failure occurs on the temperature sensor. Please send this kit to a maintenance center. |
| E1 | A failure occurs on the recycling system so that the flash cannot fire. Please restart the flash unit. If the problem still exists, please send this product to a maintenance center. |
| E2 | The system gets excessive heat. Please allow a rest time of 10 minutes. |
| E3 | The voltage on two outlets of the flash tube is too high. Please send this product to a maintenance center. |

# Advanced Application

## ● Bounce Flash

By pointing the flash head toward a wall or ceiling, the flash will bounce off the surface before illuminating the subject. This can soften shadows behind the subject for a more natural-looking shot. This is called bounce flash.

To set the bounce direction, hold the flash head and turn it to a satisfying angle.

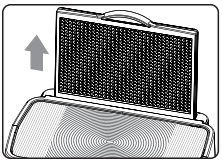



- If the wall or ceiling is too far away, the bounced flash might be too weak and result in underexposure.
- The wall or ceiling should be a plain, white color for high reflectance. If the bounce surface is not white, a color cast may appear in the picture.

## Advanced Application

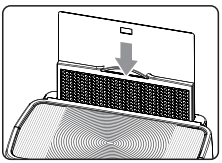
### ● Creating a Catchlight

With the catchlight panel, you can create a catchlight in the subject's eyes to add life to the facial expression.



1 Point the flash head upward by 90°.

2 Pull out the wide panel. The catchlight panel will come out at the same time.

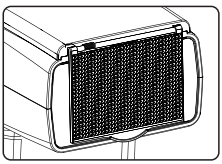


3 Push the wide panel back in.
- Push in only the wide panel.
- Follow the same procedures as for bounce flash.

⚠
- Point the flash head straight ahead and then upward by 90°. The catchlight will not appear if you swing the flash head left or right.
- For best catchlight effect, stay 1.5m/4.9ft away from the subject.

### ● Using the Wide Panel

Pull out the built-in wide panel to enlarge the flash lighting range, so as to get more softened and natural lighting effect.



Pull out the wide panel and place it over the flash head as shown. The flash coverage will then be extended to 14 mm.
- The catchlight panel will come out at the same time. Push the catchlight panel back in.

## Technical Data

| Product Model | TT600S |
|---|---|
| Guide No.<br>(1/1 power @ 200mm) | GN 60 (m ISO 100) |
| Vertical Rotation Angle | -7°-90° |
| Horizontal Rotation Angle | 0-360° |
| Power Supply | Ni-MH batteries (recommended)<br>or 4*LR6 alkaline batteries |
| Full Power Flashes | Approx. 230<br>(2500mA Ni-MH batteries) |
| Recycle Time | Approx. 0.1-2.6 seconds (eneloop Ni-MH batteries of Panasonic).<br>Red LED indicator will light up when the flash is ready. |
| Flash Duration | 1/300s-1/20000s |
| Color Temperature | 5600K±200K |
| Wireless Flash Function | Master, Slave, Off |
| Controllable slave groups | 5(A, B, C, D, E) |
| Transmission Range (approx.) | 100m |
| Channel | 1~32 |
| Dimension | 64*76*190 mm |
| Weight without Battery | 400g |
| Weight with Battery | 500g |

## Maintenance

-Shut down the device immediately should abnormal operation be detected.
-Avoid sudden impacts and the lamp should be dedusted regularly.
-It is normal for the flash tube to be warm when in use. Avoid continuous flashes if unnecessary.
-Maintenance of the flash must be performed by our authorized maintenance department which can provide original accessories.
-This product, except consumables e.g. flash tube, is supported with a one-year warranty.
-Unauthorized service will void the warranty.
-If the product had failures or was wetted, do not use it until it is repaired by professionals.
-Changes made to the specifications or designs may not be reflected in this manual.

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