

Flash Set Up

Introduction

This is a basic set up for taking portrait photographs as described and used by Richard Stanton. <http://stantonphotographic.com/>

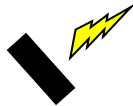
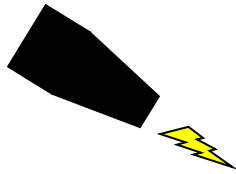
This is a starting point only,

Adjust any settings you wish in order to achieve your desired effect.

The subject may be sitting, standing kneeling etc.

Set up Diagram

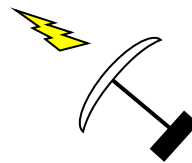
Flash with Snoot
+1 1/3 Stop
5' High
Aim at rear of head



Fill Flash
-2/3 Stop
2' High



Camera
with Radio
Transmitter



Main Flash with Umbrella
+2/3 Stop
6' High

Flash Set Up

Set up Description

Main Flash

- This is set up on a 6 foot high stand shooting through a translucent umbrella.
- This unit is set to manual mode.
- The exposure is set to **+2/3** of a stop above the ambient light level (see below).
- It is angled down towards the subject's face.
- It is fitted with a wireless radio receiver.

Fill Flash

- This is set up on a 2 foot high stand shooting with a Flash Diffuse over the flash head.
- This unit is set to manual mode.
- The exposure is set to **-2/3** of a stop below the ambient light level (see below).
- It is angled up towards the subject's face.
- It is fitted with a wireless radio receiver.

Note:

It is also possible to use a reflector instead of a fill flash as this will provide fill flash that is reduced compared to the main flash level. This would mean only TWO flash units are required.

Snoot Flash

- This is set up on a 5 foot high stand shooting through Snoot Adapter.
- This unit is set to manual mode.
- The exposure is set to **+1 1/3** of a stop above the ambient light level (see below).
- It is angled down towards the rear of the subject's head.
- It is fitted with a wireless radio receiver.

Camera

- It is fitted with a wireless radio transmitter.

Alternative to Radio Triggers

It is also possible to purchase, very cheaply, optical triggers which connect to the hotshoe of the flash and trigger the flash unit when it sees the on-camera flash unit fire.

The slave flash units do need to be able to 'see' the light emitted from the on-camera flash, be it direct line of sight or reflected from walls.

As such they do have their limitations, but are cheap.

Flash Set Up

Procedure

- Set up the equipment.
- Take an ambient light reading using the Flash Meter. (All flash units switched off).
- Adjust the exposure reading to achieve the desired aperture setting for the depth of field that is required but taking care that the shutter speed does not go too low or too high.

Flash has a maximum sync speed which is camera dependent.
See the **Exposure Guide** Section below for more information.

- Manually trigger the **Main Flash Unit** and adjust its output to **+2/3** of a stop above the ambient light level measured above. See **f Stop Adjustment Table** below.
- Ensure that only the main Flash Unit is triggering at this time or shield the Flash Meter from the light of the other flash units.
- Repeat this for the other two flash units adjusting the light output for each unit as follows;

Main Flash: **+2/3**
Fill Flash: **-2/3**
Snoot Flash: **+1 1/3**

- When all flash units are set up accordingly you have your **STARTING POINT**
- Switch all flash units on and take a light meter reading with all the flash units firing together. Set your camera accordingly.
- Then take some test shots.
- If necessary adjust the power of each flash unit, flash position (height, angle etc.) until you have the desired photograph.

Flash Set Up

Exposure Guide

First, note that a "stop" is a factor of 2 change in the total light on the sensor

F stop sequence;

1, 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22, 32 → *Darker*

The higher the f stop number the less light that passes through the aperture.

Each step is one stop apart. e.g. **2.8 to 4** is one stop less light (half the amount).

Shutter Speed Sequence

1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 → *Darker*

Each step is one stop apart. e.g. **1/60 to 1/125** is one stop less light (half the amount).

If the Flash meter states the exposure to be **1/30 @ f8** and you want to shoot at **f4** to achieve the desired depth of field the aperture has to move 2 stops to **f4** (2 stops brighter). So to keep the exposure correct the shutter speed has to move 2 stops faster (2 stops less light), to **1/125**, assuming your camera can sync at this speed.

Use the Table below to obtain the new f Stop

e.g. if the flash meter states **1/60 @ f4** and you want to subtract **2/3** of a stop

First find the original value in the first column, **f4**, read the new value in the **-2/3** column

So **1/60 @ f4** becomes **1/60 @ f5**

f Stop Adjustment Table

Measured Value (on Flash Meter)	New Value to Achieve the following Adjustment		
	Fill Flash (- 2/3)	Main Flash (+ 2/3)	Snoot Flash (+1 1/3)
1	1.2		
1.1	1.4		
1.2	1.6	1	
1.4	1.8	1.1	
1.6	2	1.2	1
1.8	2.2	1.4	1.1
2	2.5	1.6	1.2
2.2	2.8	1.8	1.4
2.5	3.2	2	1.6
2.8	3.5	2.2	1.8
3.2	4	2.5	2
3.5	4.5	2.8	2.2
4	5	3.2	2.5
4.5	5.6	3.5	2.8
5	6.3	4	3.2
5.6	7.1	4.5	3.5
6.3	8	5	4
7.1	9	5.6	4.5
8	10	6.3	5
9	11	7.1	5.6
10	13	8	6.3
11	14	9	7.1
13	16	10	8
14	18	11	9
16	20	13	10
18	22	14	11



Flash Set Up

Equipment List

Itemised List

Ebay and www.7dayshop.com are good values for money stores.

(Guide Price Only)

2x	6 foot high light stands	Ebay	£11
1x	2 foot high light stand	Ebay	£11
3x	Radio Receivers & Transmitter	Ebay	£60
1x	Ball head Adapter	Ebay	£5
2x	Umbrella Stand Adapters	Ebay	£11
3x	Hotshoe adapters	Ebay	£6
1x	Translucent Umbrella	Ebay	£5
1x	Snoot	Ebay	£23
1x	Flash Diffuser	Ebay	£4
3x	Flash Guns (with power output controls)		
3x	Flash Gun Battery Packs (optional)		
1x	Flash Meter		£140
1x	Camera		

Flash Set Up

Equipment Description

Complete Assembly



Umbrella Stand Adapters



Ball Head Adapter



Hotshoe Adapter



Translucent Umbrella



Snoot



Flash Diffuser



Radio Flash Triggers
(cheap units from Ebay)

