Ricoh XR Speedlite 300P

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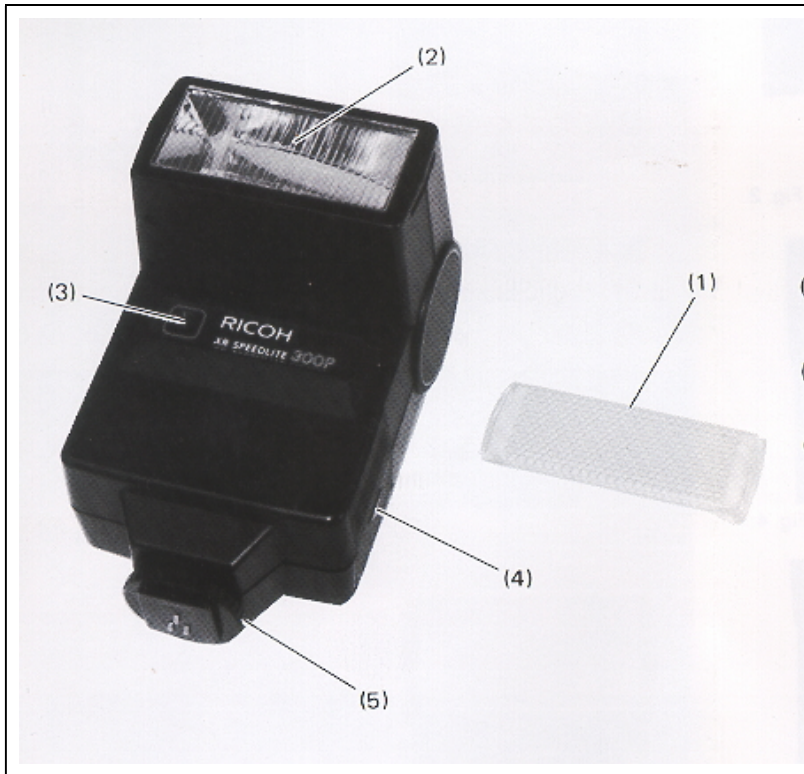
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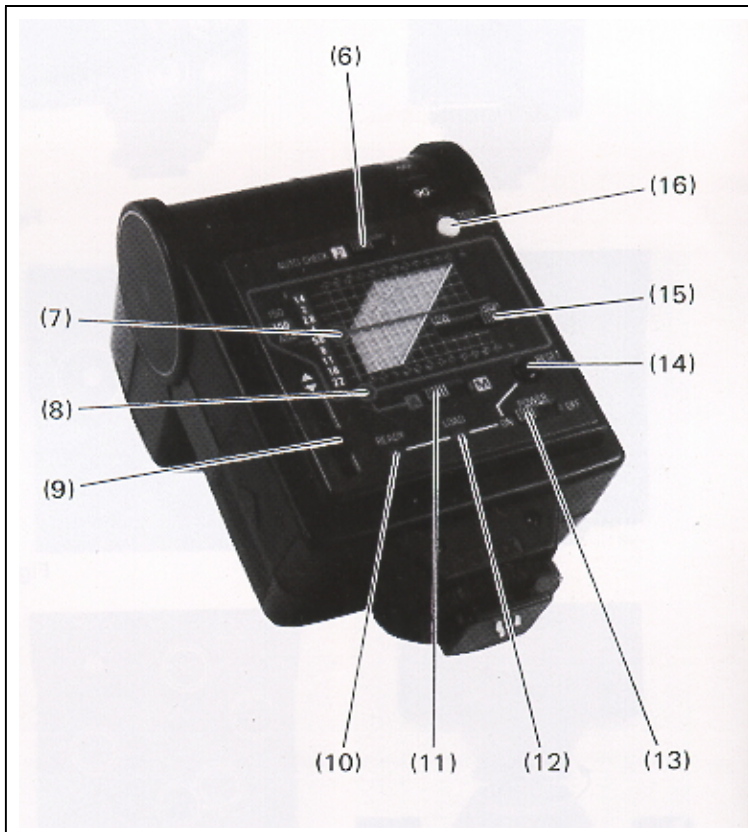www.butkus.us
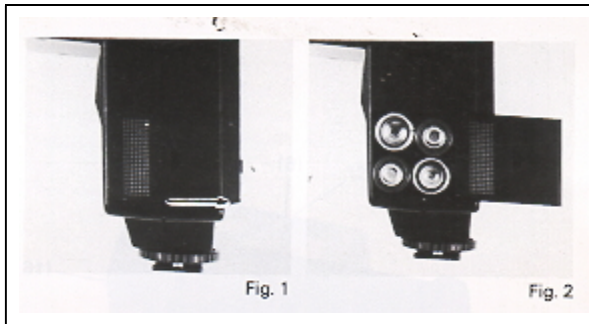
DESCRIPTION OF PARTS

1. Wide Angle Diffuser

2. Reflector

3. Light Sensor

4. Battery Compartment Cover

5. Lock Screw

6. Auto Check Sound Switch

7. Auto Lamp

8. TTL Mode Lamp

9. Film Speed Selector

10. Ready Lamp

11. A/M (Auto/Manual) Selector

12. Load-start Lamp

13. Power ON/OFF Switch

14. Reset Button

15. High/Low Selector

16. Test Button

INSERTING THE BATTERIES
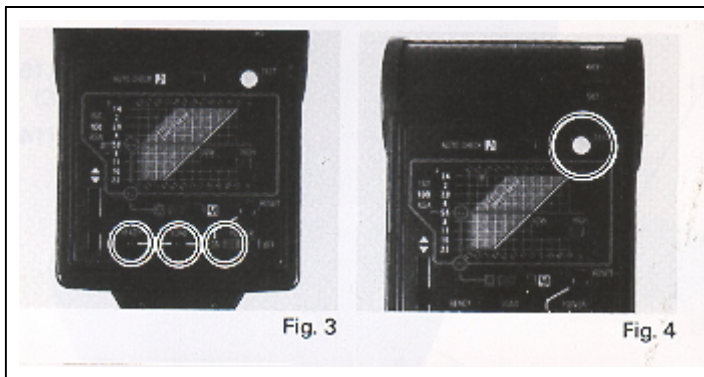

Fig. 1   Fig. 2

1. Slide the battery compartment cover in the direction of arrow to open. (Fig. 1)

2. Insert four penlight (AA size) batteries in accordance with the polarity diagram shown inside the battery compartment (Fig. 2)

3. Close the battery compartment cover by sliding it.

* Generally, the performance of batteries drops in cold conditions. When the flash is used at a temperature lower than 0 C (32°F), warm the batteries and insert them just before shooting.
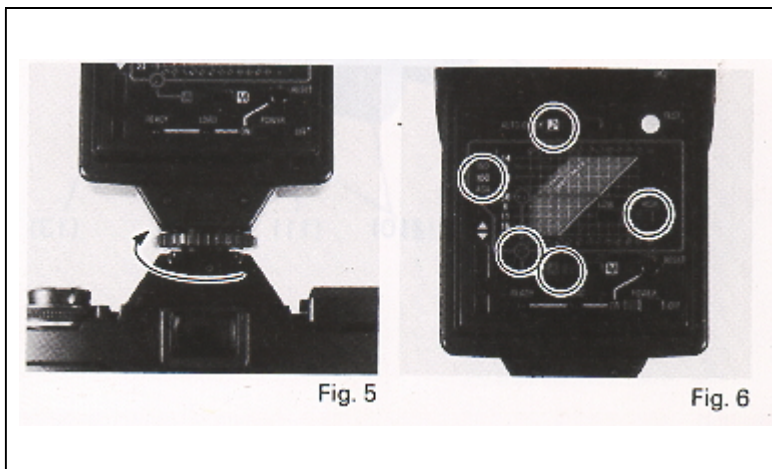* When the flash unit is not used for a long period of time, unload the batteries.

TESTING THE FLASH UNIT

Fig. 3   Fig. 4

1. Turn ON the power with the ON/OFF switch. (Fig. 3)

2. The load-start lamp (LOAD) lights up immediately, followed by the ready lamp (READY) about 9 sec. later. (Fig. 3)

3. Push the test button and make sure that the flash unit flashes. (Fig.4)

ATTACHING THE FLASH UNIT TO THE CAMERA

Fig. 5   Fig. 6

1. Loosen the lock screw and insert the flash unit fully into the hot shoe of the camera. (Fig. 5)

2. Turn the lock screw in the ◀-- LOCK direction to secure it. (Fig. 5)

* Do not use the flash with other makes of cameras that have a special signal pin(s), as this will result in incorrect exposure or may even damage the camera circuitry.

WHEN USED WITH THE XR-P

When the flash unit is used with the XR-P, the shutter speed and f-stop number are automatically set when the camera is set to program AE photography.

Flash photography is by a direct metering system and light is measured off the him plane to control the flash duration.
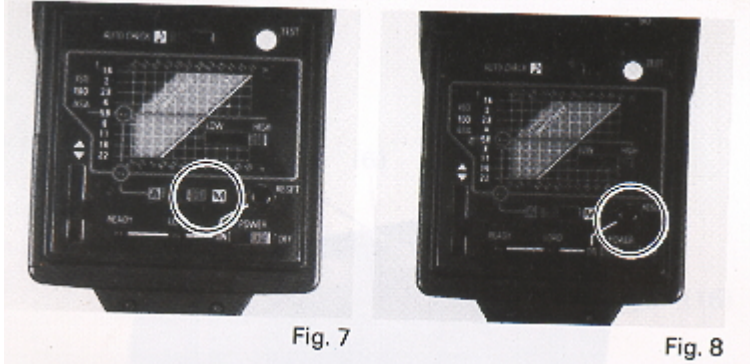
(PROGRAM AE FLASH PHOTOGRAPHY)

Fig. 7   Fig. 8

1. Slide the film speed selector to set the speed of film you are using in the film speed window. (Fig. 6)

2. Set the A/M (AUTO/MANUAL) selector to "A" (AUTO). (Fig. 6)

3. Set the HIGH/LOW selector to "HIGH". (Fig. 6)

4. Set the auto check sound switch to "musical note". (Fig. 6)

5. Turn ON the power ON/OFF switch. The load-start lamp will light up and at the same time the TTL mode lamp will light up to indicate that the flash is set to TTL direct auto flash. (Fig. 6)

6. Set the camera to the program AE photography.

7. Select the program according to the picture-taking conditions, referring to the following table.

(ASA/ISO 100 film)

Program	Automatic- f-stop setting	Automatic flash range	Subject/situations
PD	F11	0.5-2.7m 1.6~-8.9'	When you want maximum depth of focus.
P	F5.6	0.5 - 5.3m 1.6' - 17.4'	General snap shots
PA	F2.8	1.0m - 11m 3.3' - 36.1'	* A distant subject * Continuous picture taking because of shorter recycling time.

* You can check the automatic flash range in combination of f-stop and film speed by flash's built-in "FLOATING" scale.

8. When the flash is fully charged, the ready lamp lights up, and the flash ready light in the finder of the camera lights up.

9. When flash shot is made with correct exposure, the correct auto flash indicator in the finder of the camera blinks and electronic sound can be heard from the flash unit.

10. If the correct auto flash indicator does not blink, and no electronic sound is heard, exposure is not correct. In this case, change taking conditions; (1) set program selector to PA or (2) select wider lens opening manually or (3) bring the camera closer to the subject.

* Electronic sound can be eliminated with the auto check sound switch.

(APERTURE-PRIORITY AE FLASH PHOTOGRAPHY)

Fig. 9   Fig. 10

With the XR-P, the TTL direct auto flash is available with all f-stop numbers for total creative depth of field control. Use wider lens opening (F2.0, F2.8) to take a distant subject or to reduce flash charge time. Use smaller lens opening (F11, F16) to increase depth of field.

1. Set the desired f-stop number.

2. Set the shutter dial to "A".

Automatic Flash Range at Each F-Stop Number

F-Stop	Automatic flash range
F1.4	2 (6.6')-21 m (69')
2	1.4 (4.6') -15 (49')
2.8	1 (3.3')-11 (36')
4	0.7 (2.3') ' 7.5 (24.6')
5.6	0.5 (1.6')- 5.3 (17.4')
8	0.5 (1 .6') - 3.8 (12.5')
11	0.5 (1.6')- 2.7 (8.9')
16	0.5 (1.6')- 1.9 (6.2')
22	0.5 (1.6')- 1.4 (4.6')

(ISO/ASA 100 film) *

* The shutter speed can be changed to manual shutter speed (1/125 sec. or slower). If faster speed than 1/125 sec. is selected, the shutter speed is automatically set to 1/125 sec. at the moment the flash is fully charged.

USE THE 300P WITH CAMERAS OTHER THAN THE XR-P

The 300P can be used with cameras other than XR-P as an auto flash, however, auto flash control is done by the sensor on flash unit and direct off the film metering is not available.

* Set the F-stop referring to the following table.
* Set the shutter speed to a synchronizing speed of your camera. (Ricoh XR-2S, KR-10, KR-10 Super, XR-7, XR-6, XR-S can be used with shutter dial set to "A".)
* Whether flash shot is made with correct exposure or not can be checked by electronic sound.

F-stop Setting According to Film Speed

Film speed (ISO/ASA)	F-stop
25	2.8
50	4
100	5.6
200	8
400	11
1000	16

MANUAL FLASH PHOTOGRAPHY

1. Set the A/M selector to "M". (Fig.7)

2. Set the shutter speed to 1/125 sec. or lower.

3. Focus on the subject, and read off the distance from the camera to subject.

4. Calculate the correct f-stop using the following formula.

Guide Number [30 (98, feet) with ISO 100 film]
　　　　　　　　Distance

For example, when the distance is 7.5m (24.6 ft) and ISO/ASA 100 is used, the correct f-stop is 4.

* Guide number changes according to the speed of film.

Film speed	Guide Number
25	15 (49)
50	21 (69)
100	30 (98)
200	43 (141)
400	60 (197)
1000	95 (312)

FLASH IN DAYLIGHT
The subject is affected by strong background light when taking pictures in back light. Dark pictures (face etc.) may be produced. Properly lit pictures can be obtained by using flash even in daylight. This is known as "fill-flash". When the 300P is used on the XR-P, pro daylight flash can be easily accomplished even by novice photographers.

1. Set the A/M selector to "A".

2. Set the camera in the program AE mode.

3. When fully charged, the flash ready indicator lights in the viewfinder of camera and shutter speed is set automatically to 1/125 sec. Then, the f-stop number is displayed in the viewfinder. Now you can shoot if you don't see an overexposure ▲mark.

* The shutter speed dial set to "A" can be changed to manual shutter speeds (1/125 sec. or lower). Use longer manual speed to give correct exposure to the background in a room or other dark condition. When you've selected, for example, the shutter speed of 1/30 sec. and if the subject is too bright at this speed, any shutter speed up to 1/125 sec. will be selected automatically according to the brightness of the subject.

AUTO SHUT OFF
The 300P is designed to shut off the power supply automatically to save the battery energy even the ON/OFF switch is ON.

With XR-P Power consumption stops approx. 5 minutes after the last flash.

With cameras other Power consumption stops than XR-P approx. 4 minutes after the last flash.

The charging can be started again by pressing the reset button. (Fig. 8)

HIGH/LOW SELECTOR
When High/Low selector is set to "LOW", the guide number becomes 7 (23, ft) (ISO/ASA 100 film). This is ideally suited for continuous flash photography with winder or motor because of shorter recycling time. (Fig. 9)

* The flash unit can be used as auto flash or manual flash with LOW light setting.

* With the XR-P, we suggest "PA" program or wider lens opening (F2.0, F2.8) should be selected.

Auto Flash Range (LOW light)

F-Stop	Auto flash range (m)
F1.4	2 (6.6')-5 (16.4')
F2	1.4 (4.6') - 3.5 (1 1.5')
F2.8	1 (3.3') - 2.5 (8.2')
F4	0.7 (2.3') -1 .8 (5.9')
F5.6	0.5 (1 .6') -1 .3 (4.3')
F8	0.5 (1.6') - 0.9 (2.9')
F11	0.5 (1.6') - 0.6 (2.0')

(ISO/ASA 100 film)

BOUNCE PHOTOGRAPHY
You can tilt the flash head in vertical direction by 90°. Use bounce flash when you wish to have a softer effect and to eliminate harsh shadow on your subject. When taking flash pictures indoors, bounce the light off the white or reflective colored walls, ceiling. (Fig. 10)

* It is recommended to set XR-P to "PA" program or select wider lens opening (F2.0, F2.8) for bounce flash as the amount of light reaches the subject is reduced.

* Whether flash shot is made with correct exposure can be confirmed by electronic sound.

WIDE ANGLE DIFFUSER

Fig. 11

The 300P can be used with wide angle lens up to 35mm lens. When a wider angle of lens than 35 mm is used, use the wide angle diffuser. Then a wide angle lens up to 24 mm can be used. (Fig.11)

* When the wide angle diffuser is mounted, the guide number becomes 21 (69, ft) (ISO/ASA 100 film). And the distance of auto flash shot is shortened by approx.40% compared with the normal use.

* Exposure setting is the same as when using without wide angle diffuser.

PROPER CARE OF YOUR FLASH
* Even if you do not use the flash for an extended period of time, it should be tested from time to time in order to properly maintain the condenser.

* A high voltage is generated in the circuitry. It is very dangerous to take it apart or to touch the inside of the flash unit. It should be taken to a camera dealer or a recognized Ricoh service station for all repairs.

* Avoid exposing the flash unit to dust, humidity, rain, seawater, etc.

* Do not leave it in hot or humid condition such as direct sunlight, as this will cause malfunction of the flash unit.

* Clean the body of the flash unit with a dry soft cloth. Never use solvent such as thinner, benzene, etc.

SPECIFICATIONS

Type: Thyristorized TTL direct automatic flash unit

Guide Number: HIGH 30 (98, ft) (ISO/ASA 100 m.) LOW 7 (23, ft) (ISO/ASA 100 m.) with wide angle diffuser HIGH 21 (69, ft) (ISO/ASA 100 m.) LOW 5 (16, ft) (ISO/ASA 100 m.)

Flash Duration: 1 /1000 1/4000 sec.

Recycling Time: 9 sec. (Shorter depending on camera setting and subject distance)

Coverage Angle: 45° on vertical and 60° on horizontal, with wide angle diffuser 60° on vertical and 78° on horizontal

Bouncing: 0° - 90° (Click-stop at each 15°)

Auto Shut Off: 4 minutes

Number of Flashes: About 150 flashes with Alkaline batteries
About 75 flashes with Nickel Cadmium batteries
About 50 flashes with Manganese batteries

Power Source: 4 penlight (AA size) batteries 1.5V

Other features:
One touch resetting capability
Auto check sound
Switchable High/Low
Floating distance scale.

Dimensions: 74(W)x115(H)x89(D)mm(2.9"x4.5"x3.5")

Weight: 250g (without batteries) (8.8 oz)