The Facts

about the ASAHI PENTAX SPOTMATIC

THE 35mm SLR CONTROVERSY

Today there appears to be much confusion as to the relative merits of the many cameras in the 35mm Single-Lens Reflex field. It's no wonder. Look at some of the claims being made:

"Spot-metering or average-metering? Our new model stops the argument."

"Open-diaphragm or closed-down-diaphragm metering? The controversy is now over with our . . ."

"The best TTL metering system ever."

"CdS cells placed at the focal plane . . ."

"CdS cells placed behind the reflex mirror . . ."

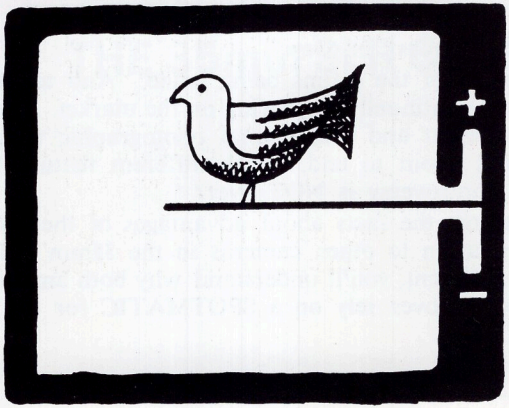
"The 35mm SLR controversy is over."

These are only a few of the claims being made. And to add to the confusion, new SLR cameras are continually appearing on the market. From various articles appearing in both amateur and professional photographic magazines, you realize the controversy is not about to end. Each different feature has its own merit. Therefore, the SLR controversy is NOT over.

This booklet presents the facts about advantages of the Asahi Pentax SPOTMATIC system in relation to other cameras in the 35mm SLR field. Once you know what makes it different, you'll understand why both amateur and professional photographers the world over rely on a SPOTMATIC for the ultimate in photographic satisfaction.

The Facts

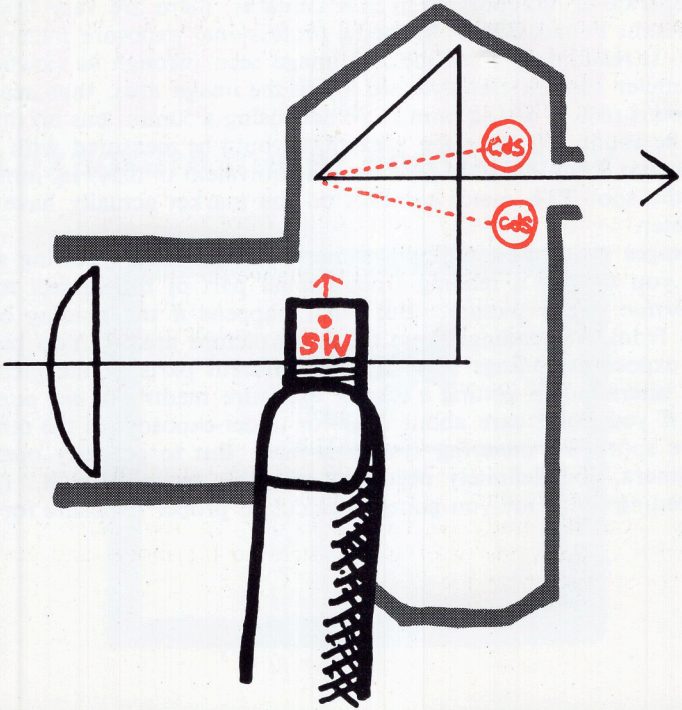
in the exposure meter controversy



Whether separate or incorporated in SLR cameras, there are very few real spot meters. The Asahi Pentax SPOT Meter (a professional exposure meter) is a true "spot" meter. It reads only 1° of the 21° image seen through its viewfinder. Yet one spot TTL meter camera claims to see 6% of the image area, thus reading 51.48 square millimeters (6% of 864 sq. mm.). When using a 50mm lens on this camera, this area will be about *100 times* the area that would be measured with the Asahi Pentax SPOT meter from the same position (an equivalent of 0.549 sq. mm.). Therefore, most of the spot TTL meter cameras on the market actually have a narrow-angle TTL meter.

The advantages claimed for the spot or narrow-angle TTL metering system are that it allows you to take a reading from a small part of the subject to correctly expose *one portion* of the picture. But what happens if the reading of that *one portion* differs from the readings from the other picture areas? You may get several different exposure readings from several different parts of the picture area.

If you are interested in getting a correct exposure reading of *one portion* of the picture only—if you don't care about over- or under-exposure of the other picture areas, then the spot TTL metering system is fine. But to properly operate a spot TTL meter camera, you definitely need a lot of highly technical skill. (If you get 10 different readings, how are you going to calculate proper exposure for the whole picture area?)


CdS
CdS
SW

The Asahi Optical Company knows and recognizes the merit of the spot TTL metering system. The original Asahi Pentax SPOTMATIC shown at Photokina 1960, the world's largest photographic exhibition held in Cologne, Germany, actually had a spot TTL metering system. That's why it's called "SPOTMATIC." The SPOTMATIC unveiled at this Photokina was the world's first 35mm SLR camera with a through-the-lens metering system. Many people insisted that it should be released on the market as soon as possible because it was the world's first. But the Asahi Optical Company wanted to field-test it extensively first. Some people liked it. But the majority felt it quite difficult to operate the spot TTL metering system properly in the majority of picture-taking situations.

As a result of these tests it was decided to change the spot TTL metering system of the SPOTMATIC. After testing and trying all conceivable TTL systems, the FULL-FORMAT TTL EXPOSURE CONTROL system was developed. Every system on the market today was tried. All were exhaustively tested. But ultimately, each model was discarded in favor of the system used in today's SPOTMATIC—a system that's right for taking pictures in virtually all situations. The SPOTMATIC method of metering reads and enables computing of correct exposure quickly for the entire viewing screen. The meter reads just what the film is going to see. For 98% of picture-taking situations, the FULL-FORMAT TTL EXPOSURE CONTROL system is best. And it's pretty good for the other 2% too! (If a spot reading of a model's face is desired, just walk a few steps to the model and get a close-up spot reading of her face with the SPOTMATIC!)

The Facts

in the open-diaphragm or closed-down-diaphragm metering controversy

The TTL meter of the SPOTMATIC reads exposure through the closed-down diaphragm. This system reads just exactly what the film is going to see – NO MORE or NO LESS! To read the exposure correctly through an f/5.6 aperture, your TTL meter must see the light coming through that aperture. With the SPOTMATIC, you first compose and focus with the diaphragm fully open for bright viewing and focusing. You then turn on the meter switch (and the diaphragm closes down) to get a correct exposure reading through the closed-down diaphragm

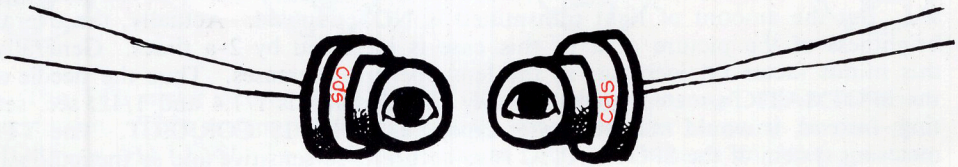
On the other hand, no matter whether you are going to take pictures at an f/5.6 or f/8 aperture, the open-diaphragm TTL exposure meter reads the light coming through the full-open diaphragm. How can you get correct exposure readings through the same full-open aperture?

These cameras have a complicated mechanical and electrical coupling device which compensates for the different taking apertures while reading exposure through the full-open aperture. It is questionable whether this system correctly compensates not only for changing apertures but for other tolerances.

Another fact to remember: according to an optical law, the total amount of light transmitted through the full-open or nearly full-open aperture of a fast lens, such as f/2 or f/1.4, is less than is generally believed. For instance, when the aperture setting is changed from f/2 to f/1.4, it is generally believed that the amount of light transmitted is doubled. Accordingly, the needle of the SPOTMATIC's meter should stay centered at f/1.4 and 1/125 sec. if it stayed centered at f/2 and 1/60 sec. But the amount of light transmitted is NOT doubled. Actually, the overall brightness of the picture area in this case is increased by 2–a times. Generally, this minus factor (a) increases as the lens aperture increases. Thus the needle of the SPOTMATIC's meter would not stay centered at this f/1.4 and 1/125 sec. setting; instead, it would indicate under-exposure. THIS IS CORRECT. The TTL metering system of the SPOTMATIC is so accurate, so sensitive and so meticulously constructed, it visibly demonstrates the above optical law. Some open-diaphragm TTL meter cameras do have a compensating device for this optical law, but it's just an approximate compensation. These compensating devices also make the cameras more complicated.

The Facts

in the position of the CdS cells controversy



When you evaluate the location of the CdS cells of various TTL meter cameras, some claim that their CdS cells are placed "right at the focal plane." Others are placed behind the reflex mirror.

But can you place CdS cells right at the focal plane? There is only ONE focal plane in a camera. The film (the emulsion surface, to be exact) runs right at the focal plane. You just can't put CdS cells "right at" the focal plane.

How about CdS cells placed behind the mirror? It's done, but CdS cells require wiring. This wiring is connected to other electrical elements. What happens to the delicate wiring if it flips up and down with the mirror thousands of times?

In both positions, the CdS cells read the light at the *out-of-focus position* of the image if it's in focus on the film plane (on the ground glass).

The CdS cells of the SPOTMATIC are located on either side of the viewfinder optics where they read the in-focus image. This means a LOT. You can also tell that the reading of the out-of-focus image is not correct. To get a correct exposure reading, you must read the brightness of the image IN FOCUS.

The Facts

about what professional think of the Spotmatic

"It's a beautiful camera to handle and ideal for my wide range of work. I've complete faith in my SPOTMATIC because I continually get the results I am aiming for. Technically, it's superb." Gordon De'Lisle

"A photographer must have supreme confidence in the equipment. Nothing beats the SPOTMATIC for candid shooting with accuracy. It's like an extension of your hands." Bob Bourne

"It's a light, beautifully designed camera. Everything's in the right place. The through-the-lens metering is foolproof. The lenses are fantastic. I just don't know how they keep the prices so low." Kurt Veld

"The Asahi Pentax system is quite brilliant. Quality is paramount with 35mm and, honestly, the SPOTMATIC is absolutely unbeatable. Lenses, TTL meter, flexibility . . . the best of everything." Anthony Rawlinson

Mr. James B. Pranke, Commander of the U.S. Antarctic Expedition Forces, recently sent Asahi Optical Company 5 color slides all taken with his SPOTMATIC at the Plateau Station. These slides were taken at −75°C, −45°C, −40°C and −30°C respectively. His SPOTMATIC was originally bought from a dealer in Ginza, Tokyo, and was not specially winterized.

The Facts

about changing models

Asahi Pentax first started selling the SPOTMATIC in July 1964. Many manufacturers followed with similar TTL metering systems. Some have disappeared. Some will disappear. New models keep appearing making different claims. Many manufacturers feel they must keeping changing models for the sake of change. But the world's camera industry knows that the Asahi Optical Company doesn't change models frequently.

As a leader in the industry, the Asahi Optical Company is constantly working on new designs to further improve 35mm SLR photography. But if you're a perfectionist, if you're super-careful about quality as the Asahi Optical Company is, only when you've perfected a really new TTL meter camera which is 100% right, will you release it on the market.

The Asahi Optical Company believes that today's SPOTMATIC is the best 35mm SLR system and offers you the best value for your money. You can purchase an Asahi Pentax SPOTMATIC today, fully confident in its outstanding performance now and in the future.

additional facts about the Spotmatic

When you're considering the purchase of a camera, remember the human engineering in the design of the SPOTMATIC. It's light. It's compact. It has the right feel. All controls are functionally located. The built-in reliability and quality of a SPOTMATIC come from its superb design, the fine finish on every part, its meticulous construction and strict quality control in manufacture.

Ask your dealer to open the top cover plates of various 35mm SLR cameras. You can easily see the big difference between the Asahi Pentax SPOTMATIC and the rest. The design of the SPOTMATIC is orthodox. Everything is where it should be.

When you know the facts and "just hold a SPOTMATIC" ... you'll know it's the camera designed to answer all your picture taking requirements.

Ask your dealer, too, to show you the complete range of Takumar lenses and accessories that make the SPOTMATIC the heart of today's most versatile 35mm SLR system. You'll find the SPOTMATIC is more than just a camera – it's an investment in photographic pleasure for years to come.

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