By Steve Pollock

MINOLTA X-700

Compact SLR has programmed-shutter and aperture-priority auto modes, film-plane flash metering

- Program mode favors high shutter speeds; also has conventional aperture-priority auto mode
- Center-weighted silicon meter for continuous-light readings
- Separate silicon cell reads flash light off film surface, controls 280PX flash
- Electronically controlled shutter, speeds 4-1/1,000 sec in either auto mode, 1-1/1,000 plus B for manual use
- Mode, shutter speed, flash ready/exposure check, under/overexposure LEDs in finder
- Acute Matte focusing screen
- Switchable beeper warns of underexposure, signals operation of electronic self-timer
- Optional Multi-Function Back serves as data imprinter, clock, calendar, counter, intervalometer
- Accepts 3.5 fps Motor Drive 1, Wireless Controller IR-1, all Minolta bayonet-mount lenses including "New MD" type
- Dimensions: 137x89x51.5 mm (5.4x3.5x2 in.), weight 505 g (17.8 oz.); both body only

The X-700 is intended to fill a space in the Minolta line between the top-drawer multimode XD cameras and the mass-market XG series. However, it makes use of newer technology than any of the existing Minolta SLRs, and therefore would seem to herald the start of a new line.

A dual-mode camera, the X-700 offers a choice of aperture-priority automation or MPS (Minolta Program System) programmed-shutter operation. The latter could be considered a shutter-speed-weighted program, in that it tends to favor rather wide apertures and high shutter speeds in medium-to-low-light situations. For example, with ASA 100 film at EV 7, the X-700 will pick a combination of 1/60 sec and f/1.4, while one competitive camera chooses 1/20 sec at about f/2.5.

This weighting of the program can be accentuated, if desired, by placing the aperture on a larger-than-minimum f-stop. Set at f/8, for instance, the system will find (or try to find) an appropriate shutter speed to go with an aperture of f/8 or larger.

To set the X-700 in its program mode, one places the shutter-speed dial in its green "P" position, and (usually) the lens to its green minimum-aperture setting. The just-introduced series of compact "New MD" Minolta lenses have a sliding lever that can be used to lock the minimum aperture in place. (Other differences include a smaller 49-mm filter thread, and the use of the Minolta rather than Minolta Rokkor name.)

The aperture-priority system, like the program mode, operates over a shutter-speed range of four to 1/1,000 sec. Both

modes depend on a conventional center-weighted through-the-lens silicon meter. The meter and all other camera functions depend on a pair of No. 76 batteries.

Metered manual exposure can be accomplished at shutter speeds from one to 1/1,000 sec. Time exposure at "B" is also available. The meter continues to function in the manual mode, and to indicate the suggested shutter speed, but there is no "match-LED" correct-exposure signal.

X-700 with Auto Electroflash 280PX, Multi-Function Back, Motor Drive 1.

A "beeper" position on the X-700's on/off switch controls an audible signal. This can beep in time with the variable-rate LED of the electronic self-timer, or warn of low-light conditions. Fortunately (in my opinion), it can also be switched off without defeating any of the camera's functions.

A separate silicon photocell on the right side of the mirror box (as one faces the front of the camera) reads the light output of the Auto 280PX flash directly from the film surface. When this cell determines that sufficient light has hit the film, it shuts off the flash. Because the 280PX is not an energy-saving unit, unused energy is presumably "dumped" into a second, hidden flash tube.

When used in its program mode with the 280PX, the X-700 camera automatically sets its shutter speed to 1/60 sec and the aperture to an appropriate setting, depending upon film speed and ambient-light conditions. Specified flash-working ranges in the programmed mode are 0.7-7 m (2.3-23 ft.) at ASA 100, and 1.4-10 m (4.6-33 ft.) at ASA 400.

Regardless of the mode or shutter speed set (except for B), the X-700 automatically switches to the 1/60-sec flash-synch speed when used with the 280PX. In its "Low" setting, the 280PX is able to keep up with a 2-fps autowinder or the equivalent "Low" mode of the Motor Drive 1. (The latter was originally introduced with the Minolta XG-M */continued on page 125*

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camera.) A slide-rule scale on the back of the 280PX displays flash-distance working ranges for various f-stops, in both "High" and "Low" light-output modes. In fact, the film-speed scale on the flash is used *only* to calibrate this display; the actual film speed is picked up directly from the X-700. A confidence light on the back of the 280PX flash glows to indicate proper exposure.

The view through the X-700's viewfinder is very bright, due to Minolta's Acute Matte focusing screen, already used in several other models. A horizontal split-image rangefinder spot and microprism doughnut take up the center of the screen, which is factory-changeable with other versions.

All viewfinder data is (properly) located on a black field outside of the image area. At bottom center is a reflected image of the lens-aperture setting, although this does not necessarily display the f-stop actually chosen by the programmed-shutter system.

To the right of the screen is a clear-on-black shutter-speed scale with numerals from 1 to 1,000. A rectangular LED next to each number indicates the shutter speed chosen or recommended by the camera. The 1/60-sec LED blinks slowly to show that the 280PX flash is ready to fire, and more quickly to indicate proper flash exposure. Flashing triangular LEDs just above and below the scale indicate over- or underexposure, respectively, for available-light situations.

Further up on the right side, other LEDs display "A" (aperture priority), "P" (program), or "M" (manual) exposure-mode signals. The "P" flashes if the lens is not set to its minimum aperture while the camera is in the programmed mode. At the bottom right of the finder, an LED next to a "+/–" symbol indicates that the exposure-bias contol is in use. (Its range is ±2 stops, in 1/2-stop increments.)

A particularly intriguing accessory for the X-700 is the Multi-Function Back. This device, which can quickly replace the standard back, combines the functions of a conventional data-imprinting back with those of an intervalometer. In the data-back mode (designated "FI"), the unit can display, and imprint if desired, six digits of information. The choices are: hours/minutes/seconds, year/month/day, month/year/day, day/month/year, any preset number from 1 to 999,999, any series of numerals advancing by one number per exposure, or no display. A blinking LED indicates that the digits are being imprinted.

Six numbers on a liquid-crystal display (LCD) show the information, while other small LCD signals indicate the function in use. As part of the FI mode, the Multi-Function Back serves as both a clock and an automatic calendar to the year 2099.

The intervalometer mode ("FII") also makes use of the clock function, to time the interval between exposure series (from one sec to 99 hours, 59 minutes, 59 sec), and the time length of each series (over the same range). From one up to 999,999 of these cycles can be preset, far beyond the life expectancy of the camera or the photographer. Two three-volt batteries power the Multi-Function Back.

Another accessory is the Wireless Controller IR-1, a two-piece transmitter/receiver set that operates at distances up to 60 m (about 200 ft.). Three infrared channels on the transmitter allow it to control three separate receiver-plus-camera units simultaneously.

The Minolta XR-700 system is already available in Japan, and should be on sale here this spring. At this writing (late October 1981), U.S. prices have not yet been set. Here are the Japanese prices, converted at a rate of 235 yen per dollar: Minolta X-700 camera (black body), $281; New MD 50-mm f/1.4 lens, $128; 280PX flash, $79; Motor Drive 1, $136; Multi-Function Back, $162; Wireless Controller IR-1 set, $111. ❍

Workshops

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Angeles, Feb. 24 and 25; San Diego, Feb. 22 and 23. **Colorado:** Denver, March 4 and 5. **District of Columbia:** Washington, Jan. 27 and 28. **Florida:** Jacksonville, Feb. 17 and 18; Miami, Feb. 8 and 9; Orlando, Feb. 15 and 16; Tampa, Feb. 10 and 11. **Georgia:** Atlanta, Jan. 11 and 12. **Kansas:** Wichita, March 15 and 16. **Louisiana:** New Orleans, Feb. 15 and 16. **Michigan:** Ann Arbor, Jan. 18 and 19. **Missouri:** Kansas City, Feb. 22 and 23. **Nebraska:** Omaha, Feb. 24 and 25. **New Mexico:** Albuquerque, Jan. 27 and 28. **New York:** Albany, March 3 and 4; Plainview, Jan. 13 and 14; Rochester, March 1 and 2. **Oklahoma:** Oklahoma City, March 10 and 11. **Tennessee:** Nashville, Jan. 14 and 15. **Texas:** Dallas, March 8 and 9; El Paso, Jan. 25 and 26; Houston, Feb. 18 and 19. **Utah:** Salt Lake City, March 1 and 2. **Virginia:** Richmond, Jan. 25 and 26. ❍