
# MIRANDA DR 1.9

**MIRANDA CAMERA CO., LTD.**

*Tokyo Japan*

# A FEW WORDS ABOUT YOUR MIRANDA

In cameras with coupled rangefinders, the lens, and rangefinder are operated simultaneously but are optically entirely separate entities, and the viewfinder is another separate entity. The rangefinder is mechanically complex with many moving parts which rarely stay in perfect adjustment in relation to the lens. Accordingly, the photographer who uses such a rangefinder frequently finds his pictures are not as sharp as he had hoped. The viewfinder, on the other hand, usually contains no moving parts to get out of adjustment, but it is optically so imperfect that the photographer cannot tell with reasonable assurance what will be included, and what will be excluded, from his picture. In ordinary snapshooting the inconvenience may not be great. However, nowadays photographers are becoming increasingly demanding.

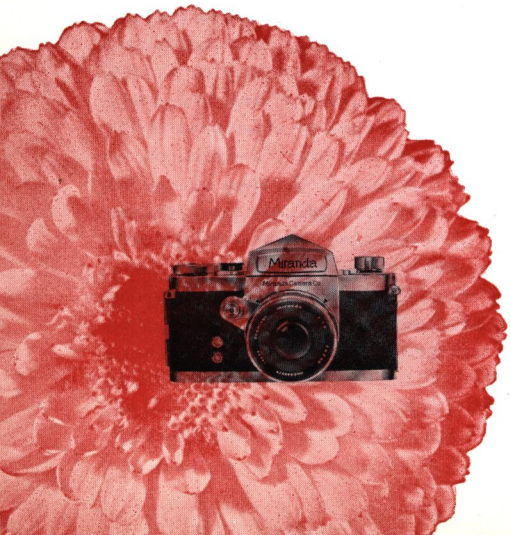
More and more photographers are demanding that their cameras give them black and white negatives good enough to make very large prints and color transparencies good enough to project onto a large screen. Interest in fine pictures, artistically composed, is increasing and many photographers are demanding 35 mm. cameras which will enable them to compose and take pictures formerly thought to require the use of large ground-glass-back cameras. Increasing numbers of photographers have discovered that small subjects—a single flower taken closeup—often make beautiful pictures. Technical, medical, and scientific workers are making photographs, frequently under extreme and exacting conditions.

These are the basic reasons why the single lens reflex camera is today coming into increasing popularity compared to the coupled rangefinder type.

In the first place, the single lens reflex camera, such as the MIRANDA, offers the advantages of ground glass focusing. This is the simplest and surest system, the only one which uses the lens itself, has no moving parts other than the lens, and never gets out of adjustment. It works equally well at all distances from infinity to extreme close up, with all lenses from telephoto to wide angle and even when taking pictures through a microscope. The ground glass by which the focus is adjusted is also the viewfinder. As a viewfinder, it is far superior to the type used on coupled rangefinder cameras since it gives you the exact edges of your picture, works equally well with all lenses at all distances, and when using a microscope. This is not surprising when you consider that the view that you see on your ground glass is the view which the lens sees. It is merely being reflected up to you by a mirror. When you take a picture the mirror flicks out of the way, letting the same light rays go straight on back to the film. The result is a picture corresponding exactly to the scene which you saw in the viewfinder. In most cases the final picture will be even sharper than the scene as viewed. When the exposure is made, the lens automatically closes down to the preselected opening, providing increased depth of field. The camera is focused with the lens wide open, when the depth of field is at its minimum, but the picture is taken with the diaphragm shut down, and increases the depth of field.

WE HOPE THAT YOUR MIRANDA WILL BE A GOOD COMPANION TO YOU FOR A LONG TIME TO COME, THAT YOU WILL ENJOY USING IT, AND THAT THE PICTURES YOU TAKE WITH IT WILL GIVE YOU MUCH PLEASURE AND SATISFACTION.

# FEATURES OF YOUR MIRANDA DR 1.9

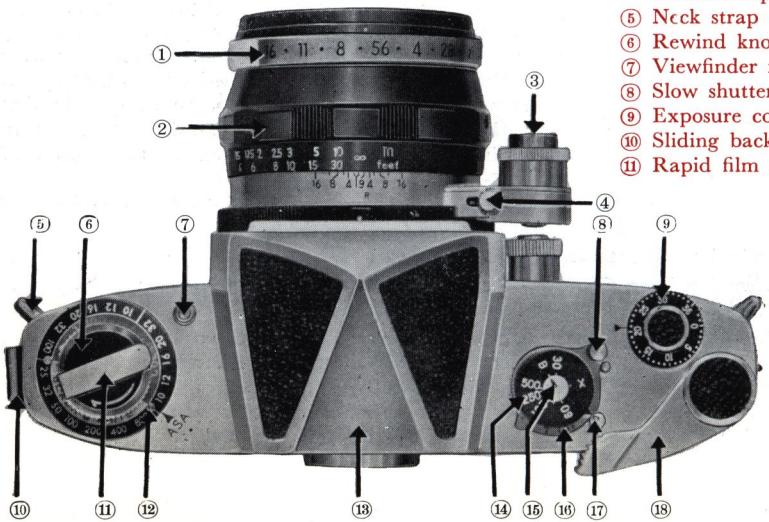


1. **The Eye-Level Viewfinder** offers a view-finding image which is brilliant, evenly illuminated, full life size, has no parallax, is precisely defined at the edges, is grainless, can be seen with glasses on, and is not reversed from right to left, as it is in the case of all twin lens reflex cameras and some single lens reflexes.
2. **Multi Split Range Finder** is located in the center of the focusing screen and permits the exact distance from camera to subject to be determined. This focusing is accomplished optically without moving parts, as is normal in RF cameras.
3. **Viewfinder Interchangeability** permits the substitution of the chest-level collapsible viewfinder (VF 1) or chest-level critical focuser (VF 3) in place of the standard pentaprism viewfinder.
4. **The Miranda Lenses** utilize a new design made possible by recently improved rare earth glass with remarkable properties. They will make pictures of extraordinary sharpness and brilliance. The lenses are quickly removed permitting the use of other lenses with a wide range of focal lengths. Instead of interchanging merely the front element of a lens, the MIRANDA offers the much superior sharpness and quality of true wide angle and telephoto lenses.

5. **The Fully Automatic Diaphragm** stops down to whatever opening is desired when a picture is taken and then returns automatically to its wide open position after each picture. A brilliant view and accurate focusing are assured because the lens is always wide open at f 1.9, when viewing. Unlike other systems, which are really semi-automatic, there is no lever which must be pushed after each picture to get the diaphragm open again.
6. **The Lens Mount Opening** is larger than any other 35 mm. camera. This makes it possible with adapters to use lenses made for other cameras. Some of these lenses will focus normally at any distance but others can be used only close-up. The large lens mount opening makes possible the use of improved high-speed lenses without restrictions imposed by the size of the mount. It eliminates vignetting when the lens is extended for taking close-ups, and when a fast lens of long focal length is used.
7. **Close-Up Photography is Convenient** because the standard 50 mm. lens can be focused as close as 17 inches without any attachment. Still closer pictures can be made easily by further extending the lens using extension tubes or the Focabell. Close-up pictures made by extending MIRANDA standard or telephoto lens out from the camera are sharper than pictures taken with add-on lenses. In addition, ultra close-ups can be taken, which is not possible with add-on lenses. Pictures can also be taken through a microscope by using an adapter.

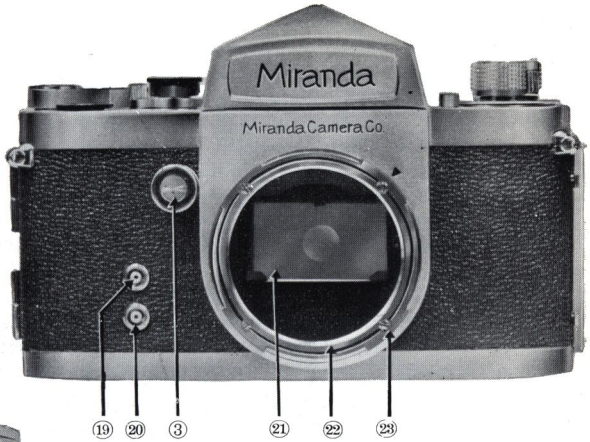
8. **The Instant-Return Mirror** is one of the advanced features of the MIRANDA DR. When the shutter release button is pressed, the mirror swings up permitting the light rays from the lens to reach the film as the focal plane shutter opens. Immediately after the film is exposed the mirror returns to the viewing position. When the mirror is up, the view through the viewfinder is momentarily blocked out, but, at speeds of 1/15 second and faster, the mirror returns to the viewing position so quickly that the photographer hardly notices the interruption. This is an important aid in following fast action, and when fleeting expressions are important to the success of the picture.
9. **The Rapid Film-Winding Lever** has a short convenient stroke. The purpose of such a lever is defeated if the stroke is very long and inconvenient. Only light pressure is required to operate the MIRANDA lever.
10. **Quiet, Vibration-Free Operation** is a result of the precision quality and superior design of the MIRANDA shutter and mirror mechanism.
11. **MIRANDA Camera Quality** means that in the concept of this camera, in its design, and in the making of each component part, only one principle has been observed and that is that the MIRANDA must be the finest 35 mm. camera in the world. The MIRANDA is the first camera of its type to be made in Japan. It incorporates many original design features, some of which are still unique. Its maker offers it to you with confidence and pride.

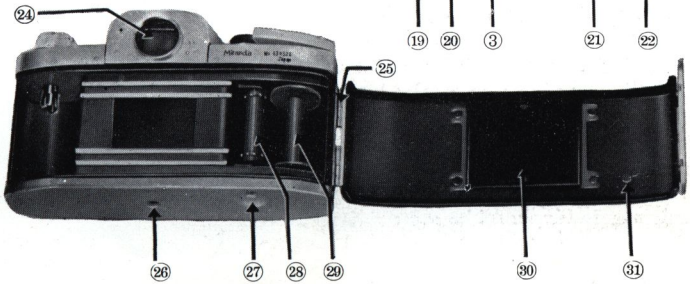
# PRINCIPAL PARTS




① Diaphragm setting ring
② Focusing ring
③ Shutter release button
④ Depth of field preview button (can also be used for manual diaphragm action)
⑤ Neck strap eye
⑥ Rewind knob
⑦ Viewfinder release
⑧ Slow shutter speed control
⑨ Exposure counter
⑩ Sliding back lock
⑪ Rapid film rewind crank

⑫ ASA speed indicator
⑬ Eye level pentaprism finder
⑭ High shutter speed dial
⑮ High shutter speed index
⑯ Slow shutter speed dial
⑰ Slow shutter speed index
⑱ Rapid film winding lever
⑲ F.P. flash socket
⑳ Electronic flash socket
㉑ Instant return mirror
㉒ Screw thread mount
㉓ Bayonet mount flange
㉔ Eyepiece




㉕ Back hinge
㉖ Tripod socket
㉗ Rewind release button
㉘ Sprocket wheel
㉙ Film take-up spool
㉚ Film pressure plate
㉛ Film cartridge guide

# FILM LOADING AND UNLOADING

*It is always advisable to load and unload the film in the shade, rather than in direct sunlight, to prevent fogging the film. Keep the film cartridge in its container until ready for use and then return it to the container immediately after removing it from the camera.*

## 1. How to Set the Film Indicator

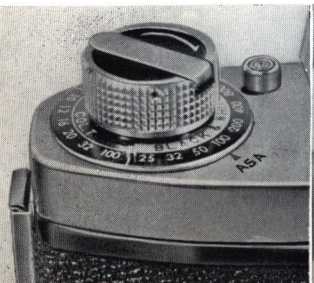
Set the type of film and its speed (ASA number) against the red arrow.

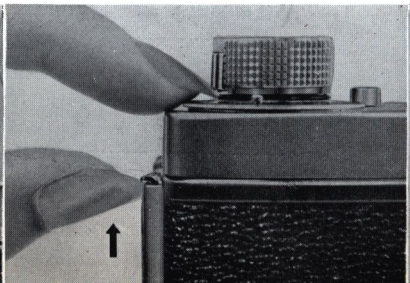
## 2. How to Unlock the Back Cover

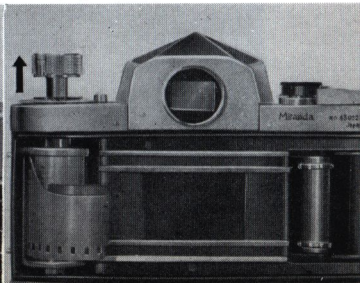
Pull up on the sliding lock at the end of the camera and the hinged back cover will open.

## 3. How to Put Film in the Camera

Pull the rewind knob up, place the film cartridge in the film chamber, and push the rewind knob back down to hold the carrtidge in place. If the knob does not go all the way down. turn it a little and it will seat.



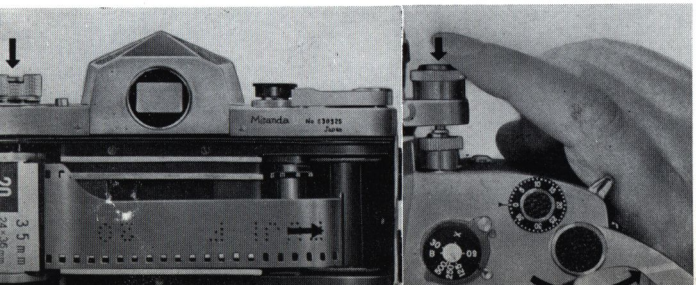


If necessary, turn the take-up spool (the flange is serrated for this purpose) until a slot is on top. Then gently draw the film leader farther out of the carrtidge and insert it into the slot.

Turn the take-up spool toward the center of the camera, for 1/2 revolution or more.

Hold the lip of the cartridge (where the film comes out) down against the camera and turn the rewind knob on top of the camera in the direction of the arrow. Continue turning until there is resistance and all of the slack in the cartridge has been taken up and the film is taut across the back of the camera. You will notice that a 20-exposure cartridge will require several turns to absorb all of the slack while a 36-exposure cartridge will have very little slack. Be sure the perforations in the film have caught in the sprockets of the sprocket wheel. If not, turn the take-up spool until they catch. Close the back cover and push the sliding back lock down.

Release the shutter, and advance the film with a full stroke of the film winding lever, while watching the rewind knob to see that it turns, then release the shutter a second time. If the rewind knob turns, it shows that the film is moving properly through the camera. If it does not turn, either the slack was not fully taken up in the cartridge or the film is not properly attached to the take-up spool.




## 4. How to Set the Exposure Counter

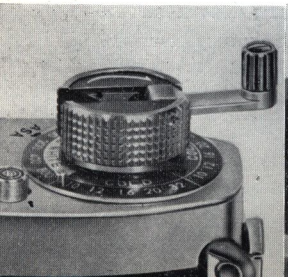
Set the exposure counter dial to 0 by turning it counter - clockwise, **after the camera has been cocked.**

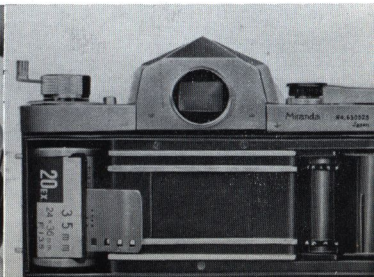
The camera is now ready for taking the first picture.

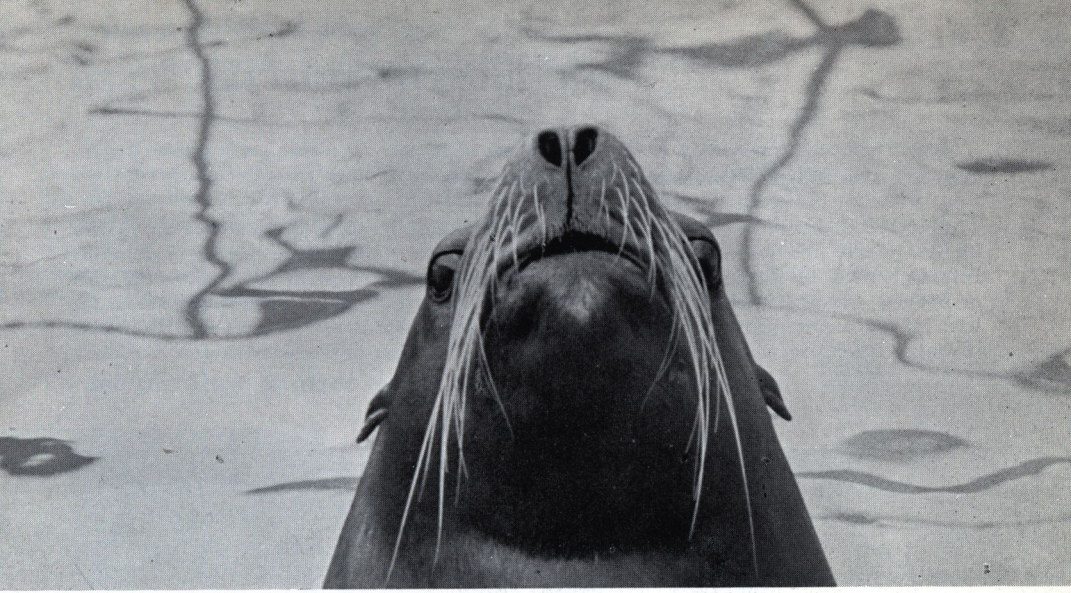
*After the full roll of film has been exposed the film winding knob cannot be turned. Do not try to force another turn, but rewind the film back into the cartridge and remove it from the camera.*

## Unloading Film

1. Flip up the rewind crank on the rewind knob to a horizontal position and wind in the direction of the arrow, while depressing the film rewind button located at the bottom of the camera.
2. At the end of the roll you will feel the resistance increase and then suddenly cease. Turn the rewind crank several more turns to make certain the film has been entirely rewound.
3. Open the back cover, pull up the rewind knob and remove the film cartridge. Put the cartride back into its container. This roll is now ready for development.





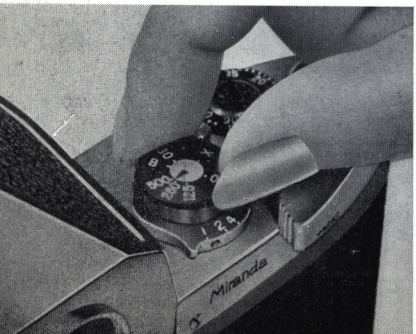
**Remember the following essential picture taking steps.**

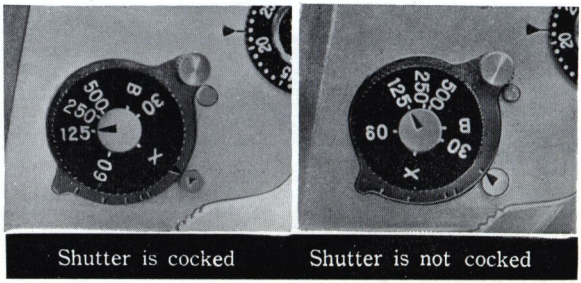
1. Advance the film with a full stroke of the film winding lever.
2. Determine the exposure.
3. Set the shutter speed dial.
4. Set Diaphragm
5. Focus the lens and compose your picture through the viewfinder.
6. Press the shutter release button gently to make the exposure.

# SETTING THE SHUTTER SPEED

## To Set the High Shutter Speed Dial

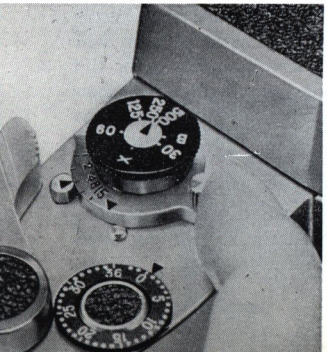
For speeds between 1/30 and 1/500 second, lift the high speed dial and set the desired speed opposite the red index arrow on the center post. The setting can be made either before or after the shutter is cocked. The shutter speed index arrow also shows whether or not the shutter is cocked. When the shutter is cocked, the arrow points directly to the left. If the arrow points in the other direction, the shutter is not yet cocked. By noting these positions, you will be able to tell at any time whether or not your shutter is cocked.



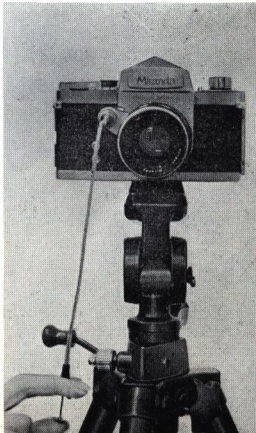



**When using the speeds on the high speed dial, it is necessary that the black arrow on the slow speed control be set opposite the index mark.** The red X setting on the dial, half-way between the 1/30 and the 1/60 setting, is especially provided to synchronize with electronic flash. Time exposure are also set on this dial by setting B opposite the red arrow. In this case a cable release should be used and the shutter will remain open as long as the cable release is pressed. Use a cable release with a Leica type fitting. For extremely long exposures, a cable release which can be locked with a set screw is recommended.

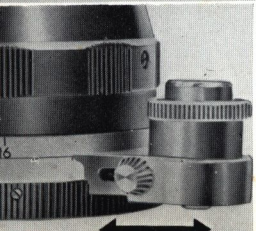
## To Set the Slow Shutter Speed Dial



For speeds between 1 second and 1/15 second, the desired speed can be selected by rotating the slow speed control. When using one of the slow speeds, the high speed dial can be left at any setting. The position of the high speed dial does not influence the exposure when a slow speed is set.




# SETTING THE DIAPHRAGM

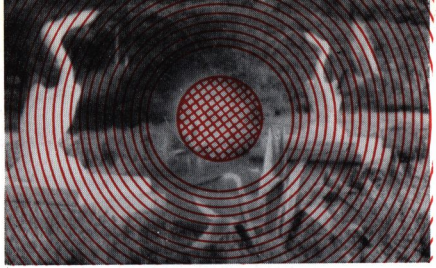



Set the desired aperture opposite the red dot on the top of the lens by rotating the diaphragm setting ring. Click stops are provided at the full stops.

The diaphragm of the MIRANDA is fully automatic in operation when the automatic diaphragm control button is in its position farthest away from the lens. When the control button is closest to the lens, the diaphragm is controlled manually.

Under all ordinary circumstances, use of the automatic diaphragm will make picture taking much easier and faster. When the control button is set for automatic operation, the diaphragm will remain wide open to facilitate viewing and focusing until the shutter release button is pressed. The diaphragm will then close down to the desired opening for the time the picture is being taken, and will then automatically reopen to its wide open position as soon as pressure on the shutter button is released.

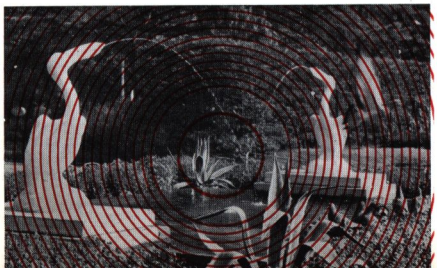
When the diaphragm control button is set for manual operation, the automatic mechanism is disconnected and the diaphragm open and closes as the diaphragm setting ring is turned.



Out of focus

## VIEWING AND FOCUSING

In focus



The Miranda DR offers two methods of focusing: (1) The center of the ground glass is equipped with a multi split range finder. This optical grating distorts the image unless it is in perfect focus. By simply focusing the lens until the center image is completely undistorted, critical focus can be obtained. (2) The camera can also be focused by focusing lens until image is at maximum sharpness on the surrounding ground glass.

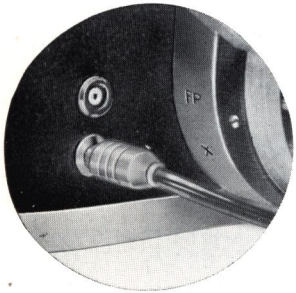
**DEPTH OF FIELD:** This is the range that is in sharp focus for any particular distance and diaphragm setting. There is relatively very little depth of field where close-up subjects are focused on, and a great deal of depth of field in the case of more distant subjects. Closing the diaphragm down increases the depth of field, and opening the diaphragm up reduces the depth of field. The depth of field also varies with the lens used. Wide angle lenses have lots of depth of field while with telephoto lenses the depth of field is much reduced. If your picture is such that you want both nearby and distant objects to be in sharp focus, then the smallest possible diaphragm should be used. However, very frequently the composition of a picture can be improved by having the principal subject in sharp focus while other objects in the scene are soft and out of focus. This will de-emphasize distracting background objects, and concentrate the viewer's attention on the principal subject. If you want to preview the depth of field prior to exposure, you can readily do so by sliding the preview button towards the lens barrel. To restore automatic operation, slide button back to original position.

Depth-of-Field Table for the MIRANDA DR 1.9

with Soligor-Miranda f: 1.9 50 mm

| Distance | Aperture f/1.9 | Aperture f/2.8 | Aperture f/4 | Aperture f/5.6 | Aperture f/8 | Aperture f/11 | Aperture f/16 |
|---|---|---|---|---|---|---|---|
| ∞ | 135′6″ | 91′9⅜″ | 64′0″ | 45′9⅜″ | 32′3⅜″ | 23′7⅛″ | 16′3⅜″ |
| | ~ ∞ | ∞ ~ | ~ ∞ | ~ ∞ | ~ ∞ | ~ ∞ | ~ ∞ |
| feet 30 | 24′9⅜″ | 22′9⅜″ | 20′8⅖″ | 18′3⅜″ | 15′9⅜″ | 13′4⅘″ | 10′8⅖″ |
| | ~38′8⅖″ | ~44′8⅖″ | ~56′3⅜″ | ~86′6″ | ~ ∞ | ~ ∞ | ~ ∞ |
| 15 | 13′7⅕″ | 13′0″ | 12′3⅜″ | 11′6″ | 10′4⅘″ | 9′3⅜″ | 8′0″ |
| | ~16′10⅘″ | ~17′10⅘″ | ~19′6″ | ~22′1⅕″ | ~27′9⅜″ | ~40′9⅜″ | ~195′7⅕″ |
| 8 | 7′7⅕″ | 7′4⅘″ | 7′2⅖″ | 6′11⅓″ | 6′6″ | 6′1⅜″ | 5′6″ |
| | ~8′6″ | ~8′9⅜″ | ~9′1⅕″ | ~9′7″ | ~10′6″ | ~11′9″ | ~15′3⅜″ |
| 5 | 4′10⅘″ | 4′9⅜″ | 4′8⅖″ | 4′7⅕″ | 4′4⅘″ | 4′2⅖″ | 4′0″ |
| | ~4′2⅖″ | ~5′3⅜″ | ~5′4⅘″ | ~5′7⅕″ | ~5′9⅜″ | ~6′2⅖″ | ~7′0″ |
| 3 | 3′0″ | 3′0″ | 2′6″ | 2′4⅘″ | 2′4⅘″ | 2′3⅜″ | 2′3⅜″ |
| | ~3′1⅕″ | ~3′1⅕″ | ~3′2⅖″ | ~3′2⅖″ | ~3′3⅜″ | ~3′4⅘″ | ~3′7⅕″ |
| inch 30 | 2′5⅖″ | 2′4⅖″ | 2′5⅕″ | 2′4⅘″ | 2′4⅖″ | 2′3⅘″ | 2′2⅘″ |
| | ~2′6⅖″ | ~2′6⅜″ | ~2′7⅕″ | ~2′7⅜″ | ~2′8⅕″ | ~2′9″ | ~2′10⅖″ |
| 20 | 1′7⅘″ | 1′7⅘″ | 1′7⅜″ | 1′7⅜″ | 1′7⅖″ | 1′7⅕″ | 1′6⅘″ |
| | ~1′8⅜″ | ~1′8⅜″ | ~1′8⅜″ | ~1′8⅘″ | ~1′9⅕″ | ~1′9⅖″ | ~1′9⅘″ |
| 17 | 1′4⅘″ | 1′4⅘″ | 1′4⅘″ | 1′4⅜″ | 1′4⅜″ | 1′4⅖″ | 1′4⅕″ |
| | ~1′5″ | ~1′5″ | ~1′5⅕″ | ~1′5⅖″ | ~1′5⅖″ | ~1′5⅜″ | ~1′5⅘″ |

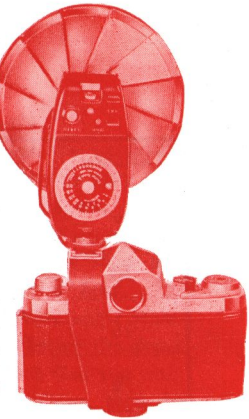
# TAKING FLASH PICTURES




The MIRANDA has built-in flash synchronization. Flash bulbs can be inserted into a flash gun either before or after the shutter is cocked without risk of unintentional firing.

The following table shows the type of flash bulbs (including electronic flash) which may be used, and the proper shutter speed dial setting and synchronization socket.

A special bracket is available providing a standard shoe to which any shoe-mounted flash unit can be attached. Exposure should be determined in accordance with the recommedations of the manufacturer of the bulb or flashgun being used.



| Type of Flash | Focal Plane Bulbs No. 6 and 6 B No. 26 and 26 B | No. 5 and 5 B* No. 25 and 26 B | AG – 1* AG – 1 B | Electronic Flash |
|---|---|---|---|---|
| Shutter Speed Dial Setting | 1/30 to 1/1000 | 1/125 | 1/125 | X |
| Synchronization Socket | FP | FP | X | X |

* With these bulbs, the light pattern will be less even than when focal plane bulbs or electronic flash are used.

# EXPOSURE

The following table applies to commonly used black & white film (ASA 100) at 1/125 second, from two hours after sunrise to two hours before sunset. When taking black and white pictures under unusual light conditions or when using color film, a photoelectric exposure meter is strongly recommened.

| | Clear Sun | Hazy Sun | Cloudy Bright | Cloudy Rain |
|---|---|---|---|---|
| Light Subject | f / 22 | f / 16 | f / 11 | f / 8 |
| Average Subject | f / 16 | f / 11 | f / 8 | f / 5.6 |
| Dark Subject | f / 11 | f / 8 | f / 5.6 | f / 4 |

# MIRANDA ACCESSORIES

# USING ACCESSORIES WITH THE MIRANDA DR 1.9

## The Chest-Level Viewfinder

A chest-level collapsible viewfinder (VF 1) and a critical focuser (VF 3) are available as accessories and may be substituted for the standard pentaprism viewfinder when so desired.

The VF 1 viewfinder opens and closes with a touch. A hinged magnifier is quickly raised for accurate focusing.

The critical focuser (VF 3) is of unique design and efficiency. It has two positions, one giving a five-times magnification of the entire field of view, the other giving a fifteen-times magnification of the central portion of the field. The fifteen-times magnification is for ultra-critical focusing. This viewfinder will be found convenient wherever it is desired to look into the top of the camera, rather than the back, for viewing and focusing. This may frequently be the case when taking pictures of very small subjects, for example in nature photography. With this viewfinder, the image is reversed from right to left.

To remove the viewfinder on the camera, pull the viewfinder release to the left and at the same time gently draw the viewfinder to the rear. To replace with the other viewfinder, insert the finder's rail into the groove of the camera and push it gently forward. It will automatically lock into place.


VF 1 Viewfinder


VF 3 Viewfinder
(magnification ×15)

VF 3 Viewfinder
(magnification ×5)



## Extension Adapter and Extension Tubes

The 50 mm. standard lens will focus at distances as close as 17 inches without accessories. By adding an extension adapter between the camera and the lens, pictures can be taken from 17 inches to 10 inches. To take pictures at still closer distances, extension tubes are added between the extension adapter and the camera. The tubes are supplied in lengths of 8, 16 and 32 mm. and enable the photographer to take full frame pictures of subjects the size of postage stamps, and even smaller.

In addition to the regular extension tubes, a special helical focusing tube is available. This tube is used between the camera and the lens either alone, or in combination with one or more regular extension tubes. The purpose of the focusing tube is to make focusing in close-up photography more flexible than it is when using only the focusing range which is affored by the lens. The focusing tube is 16 mm. long when fully telescoped and 24 mm. long when fully extended.

When using extension tubes the automatic lens will not couple with the shutter release. In this case, it is suggested that two cable releases be used, one on the lens to close the diaphragm and one on the camera to trip the shutter. This will preserve the advantages of the automatic lens for close-up photography. The shutter can be tripped by using a regular cable release with a Leica-type fitting at the shutter release button in front; in this case it will be more convenient if the lens is mounted with the red dot on the lens lined up with the blue (instead of the red) dot on the extension adapter.

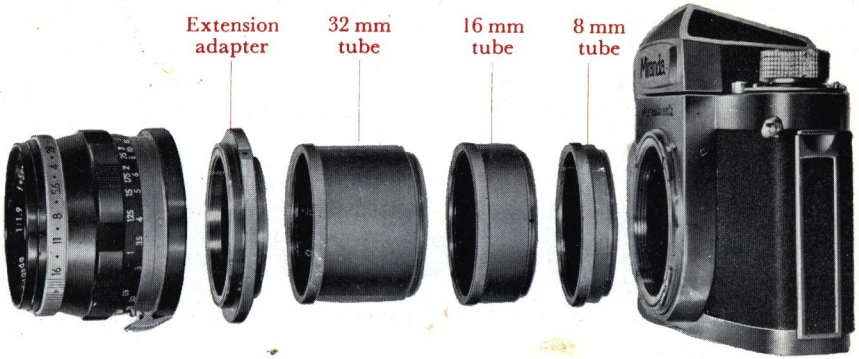



Table for Use with Extension Adapter and Tubes and 50 mm. Standard Lens

| Extension Adapt. and Tubes (length of tube in mm.) | Total length including Adapter (in mm.) | Field of View Covered (in mm.) | Size-Image on Film to Subject | Increase Needed in Exposure | Nearest to Farthest Point which can be Focused (in mm.) |
|---|---|---|---|---|---|
| Adapter only | 8 | 156 by 234 | 0.15 | 1.3 | 185.4 to 358.5 |
| Adapter and 8 | 16 | 78 by 117 | 0.31 | 1.7 | 131.3 to 189.5 |
| " 16 | 24 | 52 by 78 | 0.46 | 2.1 | 104.0 to 133.1 |
| " 8+16 | 32 | 40 by 60 | 0.62 | 2.6 | 87.4 to 105.0 |
| " 32 | 40 | 32 by 48 | 0.77 | 3.1 | 76.4 to 88.1 |
| " 8+32 | 48 | 26 by 39 | 0.92 | 3.7 | 68.4 to 76.8 |
| " 16+32 | 56 | 24 by 36 | 1.08 | 4.3 | 62.5 to 68.8 |
| "8+16+32 | 64 | 20 by 30 | 1.23 | 5.0 | 57.8 to 62.8 |

Note: 25.4 mm. equal 1 inch

## The Microscope Adapter

Pictures may be taken through a microscope by removing the lens and inserting the microscope adapter between the MIRANDA and a microscope. In effect, the microscope becomes the camera's lens. The subject to be microphotographed can be viewed and focused using either the camera's regular eye-level viewfinder, or, if preferred, the accessory chest level viewfinder VF 1 or VF 3.

1. Take off the front piece of the microscope adapter.
2. Remove the eye-piece of the microscope.
3. Insert the eye-piece of the microscope into the front piece of this adapter and put these on the microscope, fastening them by means of the screw on the side.
4. Take the lens off the camera and screw the body of the adapter into the camera.
5. Connect the front piece to the body of the adapter.

Pictures may then be taken through the microscope.

## The Focabell

The Focabell is a bellows-type focusing device intended primarily for taking close-up pictures. It focuses over an extreme range very quickly and conveniently. There are two provisions for changing the focus, one for rapid shifts and one for critical adjustments. The Focabell is made with fine precision, is very rigid, and will be found to satisfy the most exacting requirements. In addition to MIRANDA lenses, lenses of other makes can be used with adapters. Telephoto lenses in short mounts can be focused from infinity; other lenses only for close-up photography.

## List of MIRANDA Accessories

MIRANDA Everready Case
Leather Case for all MIRANDA lenses
Waist Level Finder with built-in magnifier (VF-1)
Critical Focuser with variable magnifier (VF-3)
Case for waist level finder and critical focuser
Rubber Eye Cup with diopter mounting for Prism and Critical Focuser
Prescription Eye Piece Mounting for Finders:
Model "A" for near and farsightedness
Model "B" for astigmatism
Focable Bellows Extension with double track and micro focusing adjustment
Bellox Single track bellows extension
Helical Focusing Mount for critical close-up focusing
Extension Tube Set incl. 3 tubes & Adapter
Microscope Adapter with bayonet Eye Piece mount
Flash Bracket fit flash gun on the side of the finder
Front Lens Cap
Rear Lens Cap for Miranda bayonet mount lenses
Rear Lens Cap for Miranda screw mount lenses
Miranda Body Cap

Lens Adapters

| | |
|---|---|
| P·M adapter | (with this adapter any lens made for the Praktica, Pentacon or Pentax cameras may be used from close-up to infinity) |
| X·M adapter | (with this adapter any lens made for the Exakta camera may be used from close-up to infinity) |
| AXM adapter | (for Automatic Exakta lenses (Couples to release)) |
| KL adapter | (for all Kilfitt Lenses (basic mount)) |
| AU adapter | (for all Automatic Miranda lenses to fit tubes & focusing devices) |
| L·F adapter | (with this adapter any lens with standard Leica threads can be used for close-up photography) |
| CS·F adapter | (with this adapter any standard focal length Contax or Nikon lens can be used for close-up photography) |
| CT·F adapter | (with this adapter Contax and Nikon wide angle and telephoto lenses can be used for close-up photography) |

## List of MIRANDA Lenses

28 mm f : 2.8 Wide Angle Fully Automatic 8 element ultra wide angle
35 mm f : 2.8 Wide Angle Fully Automatic 7 element
35 mm f : 2.8 Wide Angle Preset 6 element
50 mm f : 2.8 Normal 5 element Preset
50 mm f : 1.9 Normal Fully Automatic 6 element
105 mm f : 2.8 General Purpose Telephoto 5 element
135 mm f : 3.5 Short Barrel Telephoto to be used with auxiliary focusing devices
135 mm f : 3.5 True Telephoto 5 element Preset
135 mm f : 2.8 Preset High Speed Telephoto 5 element
135 mm f : 3.5 Telephoto Fully Automatic 5 element
135 mm f : 2.8 Telephoto Fully Automatic 6 element
250 mm f : 4.5 Telephoto preset with tripod socket at center of gravity
400 mm f : 5.5 Preset Telephoto in de luxe leather case with orienting tripod socket at center of gravity and filter slot with holder for Series V

# CARE OF YOUR CAMERA

## Storage

Keep your MIRANDA in a cool, dry, ventilated place. (If possible, keep it in an air-conditioned room.)
Do not store in a closed cabinet under humid conditions.
Never store in a humid place, such as a basement, particularly during rainy seasons.
If it is to be stored for some time, remove your MIRANDA from the everready case, and put it in a sealed container along with a drying agent such as silica gel. Do not permit the drying agent to come into direct contact with the camera dody.

## Protection Against Dirt, Dust and Salt Spray

When your MIRANDA is used out of doors it will in time pick up a certain amount of dust which should be regularly removed with a soft brush and air blower.
On board ship or at the seaside, your MIRANDA should be protected from contact with salt water spray. If your camera is exposed to salt spray, clean the metal and leather parts with a soft, clean cloth, moistened with alcohol or ether.
CAUTION: The lens surfaces and the mirror surface should never be touched. They should be cleaned only with an air blower, which can be purchased quite reasonably.
If no alcohol or ether is available, water can be used if the cloth is first vigorously wrung out.
The glass surface of the lens should never be touched with a finger since the slightest touch will leave finger prints which will in time may seriously injure the lens. Dust should be removed from the lens with an air blower (an ear syringe purchasable at drug stores is good). Finger prints and stubborn dirt should be removed with a photographic lens cleaner and lens cleaning paper.
The mirror is front surfaced and the reflective coating is very delicate. It should never be touched. It should be cleaned only with an air blower.

## MEMORANDUM OF YOUR CAMERA

CAMERA NUMBER 657610

LENS NUMBER K 4866825

Exclusive United States Importer:
ALLIED IMPEX CORPORATION

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# MIRANDA DR 1.9