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# Mamiya 645

## *Tools-of-the-trade* *for Mamiya 645 Owners*

# Introduction

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**Tools-of-the-trade** come in many different sizes and shapes, all designed with a specific purpose in mind.



Some enable you to work faster. Others let you capture images in ways that would otherwise not be possible. We hope this guide will help you select the tools that are right for you.

## Lenses of the Masters...

When you are ready to expand your horizons further, choose from 22 world-class lenses designed for the Mamiya 645. Comprehensive literature is available on request.

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## Variable Diopter 2X Flip-up Magnifier

Attached to the prism finder, it assures enhanced precision focusing by **magnifying the central portion** of the screen 2 times. After focusing, flip it up for normal viewing.

Featuring 5 lens elements in 2 groups, it produces an unreversed and laterally correct image. Particularly useful for critical focusing with wide angle, telephoto and variable soft focus lenses, as well as for copy work and macro photography. Built-in -5 to +5 diopter correction. For AE Prism Finder and standard Prism Finder.

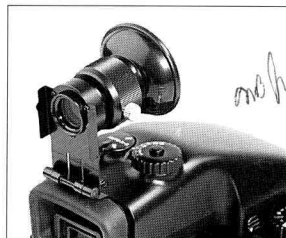
To attach Variable Diopter Magnifier, standard eyecup is removed by sliding upwards.

Cat. #211-367 for Pro & Super only

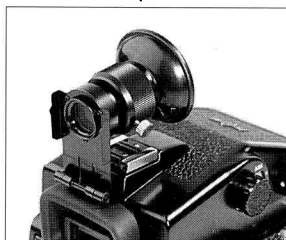
Cat. # 211-368 for 1000S, 645 & 645J, as well as Pro & Super

*Shown in "down" and "flipped-up" position.*

For Pro & Super only



For 1000S, 645, 645J, Pro & Super



## Diopter Correction Lenses

Anyone wearing eyeglasses or experiencing difficulty focusing may benefit by adding a diopter correction lens to the viewfinder. Diopter correction lenses adjust for near or farsightedness and permit your eye to more clearly see the focusing screen, thereby enabling you to achieve consistently sharp photographs.

To make it easy for Mamiya owners to explore the benefits of a diopter corrected viewfinder, complete sets of plus or minus diopters may be ordered with return privileges. Keep the diopter lens that works best for you, and return the rest within 10 days.

### For Waist Level Finders (-1.5 diopter supplied)

Diopters for 645 Pro & Super and all previous models:

Set A for farsighted eyes contains 3 lenses: +2, +1, 0

Set B for nearsighted eyes contains 3 lenses: -1.5, -2, -3



*Diopter Correction Lens  
for Waist Level Finder*

### For Prism Finders (-1.8 diopter built-in)

Diopters for 645 Pro & Super

Must be inserted into eyecup supplied with finder.

Set C for farsighted eyes contains 3 lenses: +1, +2, +3

Set D for nearsighted eyes contains 3 lenses: -1, -2, -3

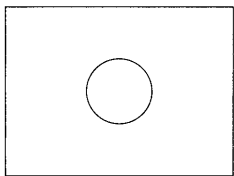


*Diopter Correction Lens  
for Prism Finders*

## Focusing Screens

Mamiya offers a broad variety of easily interchangeable focusing screens in order to serve the many specialized needs of professionals. Photographers often require more than one screen for particular applications such as close-up, architectural, landscape, portrait, industrial and scientific photography.

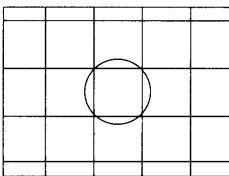
Supplied with case and tweezers for ease of installation. For 645 Pro and Super cameras.



### Type A Matte

All matte with Fresnel lens, suited for general purpose photography.

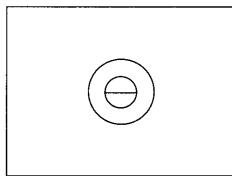
#211-340



### Type A4 Checker

Same as Matte, but with perpendicular grid. Pattern ideal as a compositional aid. Grid intersections also useful as reference points for multiple exposures.

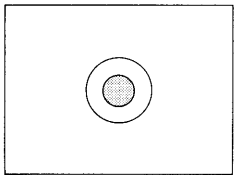
#211-341



### Type B Rangefinder Spot

Same as Matte, but with a horizontal central split-image rangefinder wedge added. Matte surface can be used for focusing, but split-image rangefinder significantly boosts focusing precision.

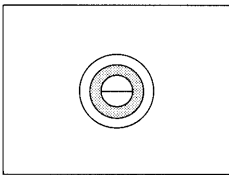
#211-342



### Type C Microprism

Same as Matte, but with central microprism spot added. Provides an alternative Rangefinder Spot screen with same benefit of enhanced focusing precision.

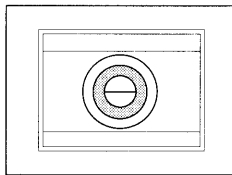
#211-343



### Type E Rangefinder Spot/Microprism

Supplied with camera. Same as Matte, but with a central horizontal split-image rangefinder wedge surrounded by a microprism collar. Highly versatile 3-way focusing (rangefinder, microprism, and matte). Ideal for general purpose photography.

#211-344



### Type E for 35mm Magazine

Same as Type E, but includes outline for full frame 35mm 24x36mm, plus outline for 13x36mm when using Panoramic Adapter (supplied with Panoramic Adapter).

#211-407

## Tele-Converter 2 x

This tele-converter is optically designed to the same quality standards as prime telephoto lenses. Its construction is 6 elements in 5 groups. It is fully compatible with AE Prism Finder providing automatic or manual exposure. With an effective focal length extension of 2x, it is designed for the 645 lenses shown in the following chart.



| Recommended<br>for   | New Effective<br>Focal Length and Aperture |
|----------------------|--|
| 150mm f/2.8          | 300mm f/5.6                                |
| 150mm f/3.5          | 300mm f/7                                  |
| 210mm f/4.0          | 420mm f/8                                  |
| 300mm f/5.6          | 600mm f/11                                 |
| 300mm f/2.8          | 600mm f/5.6                                |
| 500mm f/5.6          | 1000mm f/11                                |
| 500mm f/4.5          | 1000mm f/9                                 |
| 145mm f/4 Soft Focus | 290mm f/8                                  |
| 50mm f/4 Shift       | 100mm f/8                                  |

Due to physical limitations, the Tele-Converter cannot be used with zoom lenses or with lenses not shown on the chart above.

Cat. #210-219. Weight: 11.6 oz., 330 g.



*150mm f/2.8 lens*



*150mm f/2.8 lens with Tele-Converter*





### Front Threaded Cable Release Adapter

A very useful accessory when it is advantageous to access the cable release from the front of the camera. Especially useful when using flash brackets which fit closely to the camera body. Built-in locking switch prevents accidental removal. For Pro & Super. Cat. #211-429. Weight: 3.2 oz., 90 g.



### Quick-Shoe Model 2

A handy accessory that speeds camera attachment to and detachment from tripods, with built-in anti-rotation pins. Takes just seconds to lock and release. For all 645 series cameras.

Cat. #211-570. Weight: 8.3 oz., 235 g.



### Electromagnetic Cable Releases

Prevents motion effect of mechanical cable release. Connects to the electronic shutter release socket of the camera. For Pro & Super. Available in two types:

Type A: Coiled Cord, approx. 3 ft. long. Cat. #211-433

Type B: Straight Cord, approx. 12 ft. long. Cat. #211-434



### External Battery Case

Cold temperatures can affect battery power. Permits camera battery to be carried conveniently inside clothing. Connects battery module housing by wire to camera's battery chamber. For Pro & Super.

Cat. #210-512. Weight: 8.1 oz., 229 g.



### Soft Pouches

Great travel companions protect lenses from scuffing and scratching. Soft lining provides an extra measure of safety.

Cat. #210-220. For all "A" type lenses: 35, 45, 80 and 110mm.

Cat. #210-230. For all "B" type lenses: 50 Shift, 55, 145, 150, 210, 55~110 and 105~210mm.



### Hot Shoe to PC Adapter with Safe Sync

Slips into the camera's hot shoe and provides a threaded, secure PC flash connection. Safe Sync circuitry protects camera from high voltage feedback from flash power packs. A must item for location photographers who rent flash equipment. For Pro & Super. Can be used on any camera with a hot shoe. Cat. #213-101



### Revolving Tripod Adapter

Change from horizontal to vertical with a flip of the wrist, while maintaining alignment of the optical axis. Can be used with Power Drive Grip and Polaroid Film Holder when attached to camera. Includes Extension Shutter Release for convenient operation. Made from a precision aluminum die casting with ball bearing rotating stage. For all 645 series cameras. Cat. #211-580. Weight: 1.5 lbs., 690 g.



### Bellows Lens Hood

Attaches to the front accessory thread of 645 series lenses to provide optimum shading of the lens to prevent flare from stray light. Rack & pinion adjustment allows selection of optimal setting by actual preview; incorporates 3" gelatine filter holder. For use with lenses from 55 to 300mm, except 300mm f/2.8. Supplied with Adapter Rings for 58mm & 67mm lenses. Can be used on other brand lenses with step down rings. Cat. #210-241. Weight: 10.9 oz., 310 g.

## Power Drive Grip 2



The Power Drive Grip 2 is a modular accessory designed for use with the Mamiya 645 Pro & Super. When attached, it becomes an integral part of the camera allowing fast and effortless shutter release, film transport and automatic recocking of shutter and mirror return.

It can be used for single or continuous shooting at up to two frames per second. Accepts Power Connector for auto-cocking of N/L series Leaf Shutter Lenses. Built-in electronic shutter release with lock, battery check, auto first frame start and cable release socket. Can be triggered with remote control.

Uses six AA alkaline, NiCad batteries or AC Power Supply.

Cat. #211-431. Weight: 10.2 oz., 290 g.

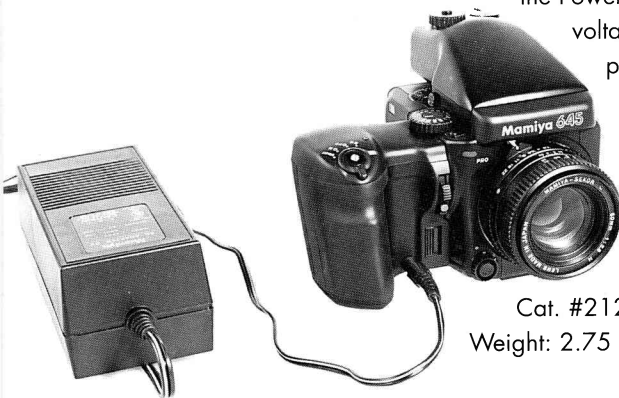
## Stabilized Power Supply for Power Drive Grip 2

Designed to power the precise electronic controls of the Power Drive Grip 2. The heavy duty, voltage stabilized power supply provides constant

9 Volt output and is suitable for continuous use. It eliminates the need to change batteries in the middle of a long photo session. For Pro & Super. Also for RZ Power Winder II.

Cat. #212-622.

Weight: 2.75 lbs., 1247 g.



## Left Hand Grips

Contoured left-hand grip with hand strap to provide excellent balance for both hand-held shooting and for carrying. The grip is equipped with a locking shutter release and is electronically linked to the camera.

Hot-shoe provided for accessories.

Cat. #211-427. for Pro (one size).

Cat. #211-421. (Small) for Super only.

Cat. #211-422. (Medium) for Super only.

Cat. #211-423. (Large) for Super only.

Cat. #211-423. RA401 Connector, converts Super Grip for use with Pro.



## Cesar-Pro Flash Bracket

This unique flash bracket combines Mamiya's ergonomically designed, contoured left hand L-Grip Holder with a sturdy aluminum frame from Strobiframe® for placing the flash over the lens. Electronic release makes it the most convenient and comfortable bracket available.

Bracket swivels for correct flash orientation when camera is rotated from horizontal to vertical.

This heavy duty bracket accepts popular shoe mount flashes as well as handle mount flash units. Convenient, interchangeable accessories allow you to attach shoe mount, handle mount, or Metz handle mount flashes on top.

Cat. #211-202. Weight: 1.2 lbs., 544 g.

Accessory adapters sold separately for:

Shoe mount flashes Cat. #215-404

Handle mount flashes Cat. #215-402

Metz handle mount flashes Cat. #215-416

Flash heads with 1/4" screws Cat. #215-403



# Close-up Accessories

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## Auto Extension Tubes

Mamiya extension tubes are precision machined for close-up and macrophotography. They are fully meter coupled for automatic or manual exposure. The three automatic tubes can be used individually or in any combination. May be used with all lenses from 55mm, except zooms. Some vignetting may occur with lenses 150 mm and up.

No 1 = 11.8mm extension Cat. #210-250

No. 2 = 23.6mm extension Cat. #210-251

No. 3S = 35.4mm extension Cat. #210-252



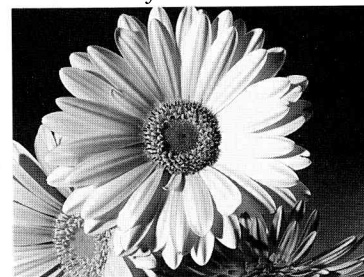
See close-up chart on page 14 for details



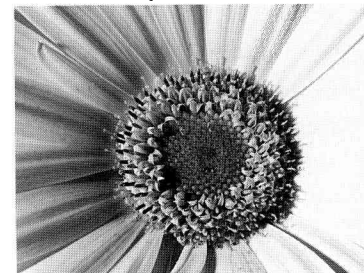
*80mm f.2.8 at closest focus*



*80mm f.2.8 with No. 1*



*80mm f.2.8 with No. 2*



*80mm f.2.8 with No. 1, 2 & 3S*

Beata for Jean Alpert Agency

*150mm f/2.8 lens**150mm f/2.8 lens  
with No. 2 Extension Tube*

Fashion, beauty, portrait, nature and table top photographers at times require closer than normal focusing ability for tight head shots or revealing small details. This illustration demonstrates the dramatic effect possible with the addition of an Extension Tube to a popular lens.

Slight vignetting may be visible with some lenses depending on lens distance, aperture and background.



### **Auto Macro Spacer for 80mm f/4N**

Designed for the 80mm f/4N Macro Lens only, the Auto Macro Spacer extends the focusing range from 1/2 life-size to full life size (1:1). Features diaphragm automation and meter coupling. Cat. #210-253. Weight: 4.2 oz., 120 g.

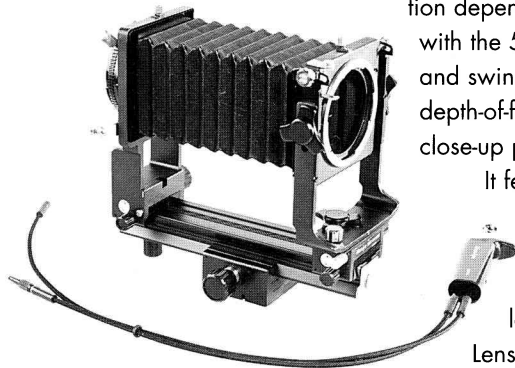


### **Extended Lens Connector Cable**

Coiled cord for connecting Leaf Shutter Lenses when mounted on Extension Tubes to Power Drive Grip 2. Cat. #211-437

## Auto Bellows N

The Auto Bellows N is a precision close-up device with continuous magnification range. Both automatic and manual exposure control is available when used with the AE Prism Finder. It permits a wide range of magnification depending on the lens used (up to 4.35X with the 55mm lens reversed). Front tilt, rise and swing can be used creatively to control depth-of-field and plane-of-focus in critical close-up photography.



It features rack and pinion base rail, and revolving mount for turning camera horizontally or vertically.

For maximum magnification, lens may be reversed using optional Lens Reversing Ring. Double cable release and camera mounting ring included for all 645 series cameras. Cat. #210-240. Weight: 2.9 lbs. 1300 g

Following chart illustrates the 80mm f/2.8 lens in the normal position. Lens may be reversed as well for some applications with the use of a Reversing Ring. Similar charts are available for all lenses.

**Close-up Table for 80mm f2.8 Lens with Auto Bellows for 645 Cameras**

| Extension | Magnification | Lens-to-subject | Area covered (in.)<br>distance (in.) | Exposure<br>compensation |
|-----------|---------------|-----------------|--------------------------------------|--------------------------|
| 48.0mm    | 0.60          | 6.94            | 2.72 x 3.66                          | 1.5                      |
| 64.0mm    | 0.80          | 5.63            | 2.06 x 2.75                          | 1.5                      |
| 80.1mm    | 1.00          | 4.84            | 1.66 x 2.22                          | 2.0                      |
| 96.1mm    | 1.20          | 4.28            | 1.38 x 1.84                          | 2.5                      |
| 112.1mm   | 1.40          | 3.94            | 1.19 x 1.56                          | 2.5                      |
| 120.1mm   | 1.50          | 3.78            | 1.09 x 1.47                          | 2.5                      |
| 128.1mm   | 1.60          | 3.66            | 1.03 x 1.38                          | 3.0                      |
| 144.1mm   | 1.80          | 3.44            | 0.91 x 1.22                          | 3.0                      |
| 160.1mm   | 2.00          | 3.28            | 0.81 x 1.09                          | 3.0                      |
| 176.1mm   | 2.20          | 3.13            | 0.75 x 1.03                          | 3.5                      |
| 178.7mm   | 2.23          | 3.06            | 0.75 x 0.97                          | 3.5                      |



### Balloon Bellows

Interchangeable with standard bellows on Auto Bellows N for very short extensions, especially with wide angle lenses.

Cat. #210-247



### Camera Mounting Ring

To attach older model Bellows to 645 Pro & Super camera.

Cat. #211-251



### Reversing Rings for Auto Bellows N

Permits reverse lens mounting for maximum magnification with bellows focusing. Can not mount to camera directly.

Cat. #210-243 with 58mm filter thread.

Cat. #210-244 with 67mm filter thread.



### Connecting Rings

To attach 645 Bellows Lens Hood or threaded filters to back of reversed lens to eliminate flare-producing stray light.

Cat. #210-245 to attach 58mm accessories.

Cat. #210-246 to attach 67mm accessories.



*645 Pro shown with Auto Bellows N, Balloon Bellows, Perspective Ring, Reversing Ring, 80mm f/2.8N Lens reversed and 67mm Connecting Ring.*



# Close-up Table for Extension Tubes

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## Close-up Table for Extension Tubes and Auto Macro Spacer for 80mm f/4 Macro

| Lens                | Extension Tube  | Magnification |      | Subject Dist. (in.) |      | Area covered (in.) |            |
|---------------------|-----------------|---------------|------|---------------------|------|--------------------|------------|
|                     |                 | Min.          | Max  | From                | To   | From               | To         |
| 80mm f/2.8          | No. 1           | 0.15          | 0.30 | 23.1                | 12.2 | 11.1 x 15.0        | 5.5 x 7.4  |
|                     | No. 2           | 0.29          | 0.45 | 12.4                | 8.7  | 5.6 x 7.5          | 3.7 x 5.0  |
|                     | No. 3-S         | 0.44          | 0.60 | 8.8                 | 7.0  | 3.7 x 5.0          | 2.8 x 3.7  |
|                     | No. 1 + No. 3S  | 0.59          | 0.74 | 7.0                 | 5.9  | 2.8 x 3.7          | 2.2 x 3.0  |
|                     | No. 2+No. 3S    | 0.73          | 0.89 | 5.9                 | 5.2  | 2.2 x 3.0          | 1.8 x 2.4  |
|                     | No. 1+2+3S      | 0.88          | 1.04 | 5.2                 | 4.7  | 1.9 x 2.5          | 1.6 x 2.1  |
| 80mm f/1.9          | No. 1           | 0.15          | 0.30 | 22.4                | 11.6 | 11.1 x 15.0        | 5.5 x 7.2  |
|                     | No. 2           | 0.29          | 0.44 | 11.7                | 8.1  | 5.6 x 7.5          | 3.7 x 5.0  |
|                     | No. 3-S         | 0.44          | 0.59 | 8.1                 | 6.3  | 3.7 x 5.0          | 2.8 x 3.7  |
|                     | No. 1 + No. 3S  | 0.59          | 0.74 | 6.3                 | 5.2  | 2.8 x 3.7          | 2.2 x 3.0  |
|                     | No. 2+No. 3S    | 0.74          | 0.89 | 5.2                 | 4.5  | 2.2 x 3.0          | 1.9 x 2.5  |
|                     | No. 1+2+3S      | 0.88          | 1.03 | 4.5                 | 4.0  | 1.9 x 2.5          | 1.6 x 2.1  |
| 55mm f/2.8          | No. 1           | 0.27          | 0.36 | 10.4                | 6.3  | 7.7 x 10.4         | 4.6 x 6.2  |
|                     | No. 2           | 0.43          | 0.57 | 5.3                 | 4.0  | 3.8 x 5.2          | 2.9 x 3.9  |
|                     | No. 3-S*        | 0.54          | 0.78 | 3.6                 | 3.0  | 2.6 x 3.4          | 2.1 x 2.8  |
|                     | No. 1 + No. 3S* | 0.85          | 0.99 | 2.7                 | 2.4  | 1.9 x 2.6          | 1.6 x 2.2  |
|                     | No. 2+No. 3S*   | 1.07          | 1.21 | 2.2                 | 2.0  | 1.5 x 2.1          | 1.4 x 1.8  |
|                     | No. 1+2+3S*     | 1.28          | 1.42 | 1.9                 | 1.7  | 1.3 x 1.7          | 1.1 x 1.6  |
| 110mm f/2.8         | No. 1           | 0.11          | 0.22 | 43.6                | 23.0 | 15.3 x 20.6        | 7.5 x 10.1 |
|                     | No. 2           | 0.21          | 0.33 | 23.4                | 16.5 | 7.6 x 10.3         | 5.0 x 6.8  |
|                     | No. 3-S*        | 0.32          | 0.43 | 16.7                | 13.2 | 5.1 x 6.9          | 3.8 x 5.1  |
|                     | No. 1 + No. 3S* | 0.43          | 0.54 | 13.3                | 11.2 | 3.8 x 5.1          | 3.0 x 4.1  |
|                     | No. 2+No. 3S*   | 0.54          | 0.65 | 11.3                | 9.9  | 3.0 x 4.1          | 2.5 x 3.4  |
|                     | No. 1+2+3S*     | 0.64          | 0.75 | 9.9                 | 8.9  | 2.5 x 3.4          | 2.2 x 2.9  |
| 150mm F/2.8 & f/3.5 | No. 1           | 0.08          | 0.21 | 85.9                | 35.4 | 21.5 x 29.0        | 7.9 x 10.6 |
|                     | No. 2           | 0.15          | 0.28 | 45.7                | 27.5 | 10.7 x 14.4        | 5.8 x 7.8  |
|                     | No. 3-S*        | 0.23          | 0.36 | 32.6                | 22.9 | 7.1 x 9.6          | 4.5 x 6.1  |
|                     | No. 1 + No. 3S* | 0.31          | 0.44 | 25.9                | 20.0 | 5.3 x 7.2          | 3.7 x 5.0  |
|                     | No. 2+No. 3S*   | 0.38          | 0.51 | 21.9                | 17.9 | 4.3 x 5.8          | 3.2 x 4.3  |
|                     | No. 1+2+3S*     | 0.46          | 0.59 | 19.3                | 16.4 | 3.6 x 4.8          | 2.8 x 3.7  |
| 80mm f/4.0 Macro    | without Spacer  | 0.03          | 0.50 | 132.3               | 7.2  | 65.4 x 88.2        | 3.3 x 4.4  |
|                     | with Spacer     | 0.50          | 1.00 | 7.1                 | 4.0  | 3.3 x 4.4          | 1.7 x 2.2  |

\* Some vignetting may occur

## Radio Controlled Remote Transmitter & Receiver

Permits releasing the camera shutter without bothersome wires or air hoses and gives the photographer freedom of movement. When used with the Power Drive Grip 2, it permits shooting without having to return to the camera after each exposure. Unobstructed operating range is up to 30 ft.

Nature and wildlife photographers, as well as portrait and children photographers, will particularly appreciate this great convenience.

When the AE (Automatic Exposure) Prism Finder is attached, the camera can automatically set the correct shutter speed, without the operator's involvement.

We have customized and re-engineered the popular Polaroid Remote Control to serve as an economical, efficient accessory for Mamiya 645 cameras. Transmitter and Receiver each require one 9V battery (not supplied).

For Pro & Super.

Cat. #212-603. Weight: 12 oz., 340 g.



## Infrared Multi Channel Remote Control

Consists of Transmitter and camera-mounted Receiver. Choice of three infrared channels for interference free operation. Up to 30 ft. operating

range. Transmitter uses two AA Alkaline batteries; Receiver one 9 Volt battery (not supplied). Cat. #212-607. For Pro & Super.

Weight: Transmitter: 4.6 oz., 130 g (without batteries); Receiver: 4.9 oz., 140 g (without batteries).





120 Magazine 6x4.5



220 Magazine 6x4.5

## Film Magazines

Mamiya Film Magazines permit fast interchange, even in mid-roll and can also be quickly loaded with interchangeable, pre-loadable Roll Film Inserts. Choose from 120, 220, 35mm roll film, or Polaroid Pack Film.

Each Roll Film Magazine incorporates a Film Speed Dial (ISO settings 25 to 6400) which automatically interfaces through the AE Prism Finder with the camera shutter and lens diaphragm to assure correct exposures. Set it when you load the film.

Other desirable Magazine fail-safe features are: Its Dark Slide is locked when Roll Film Magazine is not attached to camera to prevent accidental exposure; The shutter cannot be released when a Magazine is attached to camera, unless Dark Slide is withdrawn; The Magazines cannot be removed from camera unless Dark Slide is inserted.

Convenient, built-in darkslide storage slot. 120 and 220 Magazines accept either 120 or 220 Inserts.

## Pre-loadable Roll Film Inserts

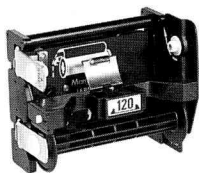
Inserts can be pre-loaded with film, and ready for use in Magazines. It's the economical and efficient way to be prepared for long shooting sessions when fast film changes are required. 120 and 220 Roll Film Inserts are interchangeable in either 120 or 220 Film Magazines. Saves time and money. Supplied with case.

120 Roll Film Insert for all 645 Series cameras - Cat. #210-400

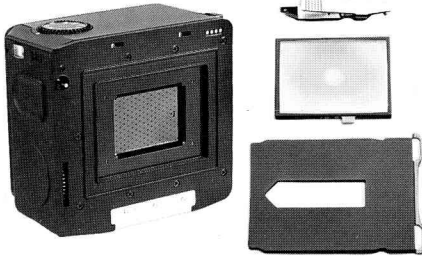
220 Roll Film Insert for all 645 Series cameras - Cat. #210-401

Spare case for Roll Film Insert - Cat. #210-402

For 35mm Magazine Only: 35mm Roll Film Insert - Cat. #211-414



| Type               | 120 Roll Film Magazine | 220 Roll Film Magazine | 35mm Roll Film Magazine                      | Polaroid Film Pack Holder              |
|--------------------|------------------------|------------------------|--|--|
| Film Type          | 120 Roll Film          | 220 Roll Film          | 35mm Roll Film                               | Polaroid® Pack Film (100 & 600 Series) |
| Image Size on Film | 41.5 x 56mm            | 41.5 x 56mm            | 24x36mm (Full 35mm)<br>13 x 36mm (Panoramic) | 41.5 x 56mm                            |
| # of Exposures     | 15 exposures           | 30 exposures           | 24 or 36 (Full 35mm)<br>24 or 36 (Panoramic) | 10 exposures                           |
| Weight             | 18.7 oz., 530 g        | 18.7 oz., 530 g        | 19.4 oz., 550 g                              | 18.7 oz., 330 g                        |
| Cat. #             | 211-418                | 211-419                | 211-417                                      | 211-408                                |



### 35mm Magazine with Panoramic Adapter

For multi-format versatility in one camera system. Accepts all 35mm films and gives you full frame standard 24x36mm images. Supplied with viewing screen with markings for 645, 35mm and 35mm panoramic format and tweezers for convenient screen handling.

Additionally supplied with a panoramic masking slide adapter which enables you to compose 13x36mm images, the standard panoramic format. Rewind crank built-in.

For 645 Pro & Super. Cat. #211-417



### Polaroid Film Pack Holder

One of the greatest time and money saving devices available. The Polaroid Film Pack Holder is indispensable for checking exposure, composition and lighting, especially fill flash. Invaluable for instant proofing of images for art directors and clients.

Fully meter coupled with Pro AE Prism Finder. An absolute must in elaborate settings where the shoot cannot be duplicated. For 645 Pro & Super. Cat. #211-408



### Tripod Adapter N-2

When using the 645 Pro or Super on a tripod with the Polaroid Film Pack Holder attached, the Tripod Adapter is required in order for the Holder to clear the tripod head.

Cat. #211-512

## PRO AE Prism Finder with A/S Matrix Metering



This aperture-priority AE finder offers both spot and average metering choices, as well as its own special auto-selection (A/S) function that switches between spot and averaged automatically to suit the shooting conditions. Provision to accept diopter correction lenses and Variable Diopter Flip-up Magnifier. For 645 Pro. Modification available for use with 645 Super.

Cat. #211-315. Weight: 11.5 oz., 325 g.

### Technical Information

|                        |  |
|------------------------|--|
| Type:                  | Correct-image prism viewfinder   |
| Magnification:         | 0.79x with 80mm lens   |
| Built-in Correction:   | -1.8 diopter   |
| Metering Type:         | TTL with average, spot or matrix - auto selection (A/S)  |
| Metering Range:        | EV 1 (f/2.8, 4 sec.) to EV 19 (f/22, 1/1000 sec.)  |
| Shutter Speeds:        | Auto: 8 sec. ~ 1/1000 sec. at 1/6 EV stop intervals<br>Manual: 4 sec. ~ 1/1000 sec. at 1 EV stop intervals |
| Film Sensitivity:      | ISO 25-6400 input through film speed dial on Roll Film Magazine  |
| Exposure Compensation: | ± 3 EV (in 1/3 steps)  |
| AE Lock:               | Function-selectable on shutter speed dial  |
| Power:                 | Operates on camera battery   |

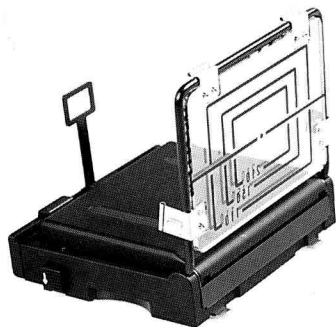
## PRO Prism Finder



Optically identical to Pro AE Prism Finder but without built-in metering. It provides a bright, unreversed and laterally correct image. It is ideal for all situations which call for eye-level shooting. Provision to accept diopter correction lenses and Variable Diopter Flip-up Magnifier.

For 645 Pro & Super.

Cat. #211-316. Weight: 10.6 oz., 300 g



### Waist Level Finder N

A lightweight reflex finder with self-erecting hood and flip-up magnifier for critical focusing. Opens with a single touch to provide bright screen viewing of the entire frame. Raising the center magnifier makes fine focusing quick and easy, while also creating a light-tight hood to shield the screen from extraneous light.

Converts to sports finder for 80mm standard lens and is also supplied with Finder Mask for 110, 150 and 210mm lenses.

Provision to accept diopter correction lenses. The built-in diopter correction is -1.5. For Pro & Super.

Cat. #211-310. Weight: 4.4 oz., 125 g.



### Right Angle Finder

Attaches to eyepiece of Prism Finders and slightly magnifies the central portion of the image. Makes low-angle, close-up and copy work more comfortable. Unlike the waist level finder N, it provides right-side-up image and features click stops and a built-in diopter correction (-4 to +4). For 645 Pro & Super. Cat. #211-364. Weight: 4.4 oz., 125 g.

# Medium Format Slide Projectors

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There is no better way to enjoy the richness of color, the incredible intricacies of detail, the breathtaking lifelike image quality, than with Mamiya medium format transparencies projected on a large screen. 35mm slides just cannot compete.

## Goetschmann Automatic Projector

Industrial quality Goetschmann Projectors are custom made. With a light output of 6000 lumens they are the most powerful projectors on the market. They are so bright they can be used in large rooms or auditoriums.



Features: 400 W quartz-halogen lamp, automatic lamp changer, dichroic reflector, multicoated triple condenser system - with the front condenser matched to the focal length of the lens used, multicoated heat absorption filter, two fans to cool lamp and slide stage respectively, large selection of Schneider five and six element multicoated lenses from 75mm to 400mm, interchangeable slide trays,

holding up to 50 transparencies in standard

85x85mm mounts, remote forward or reverse slide transport. The projector accepts SAV type dissolve controllers.

Model G 8585 AV, Cat. #600-200. Weight: 48 lbs., 21.8 kg.

### Available lenses:

|                             |          |                           |          |
|-----------------------------|----------|---------------------------|----------|
| 75mm f/2 Super - Cinelux MC | #600-109 | 250mm f/4 AV - Xenotar MC | #600-114 |
| 90mm f/3.5 AV - Xenotar MC  | #600-110 | 300mm f/4.5 Prolux C      | #600-115 |
| 150mm f/2.8 AV - Xenotar MC | #600-111 | 400mm f/4 AV - Xenotar    | #600-116 |
| 200mm f/3.5 Prolux C        | #600-112 | Slide tray for 50 slides  | #600-245 |

Goetschmann projectors and lenses are available for rental directly from your dealer or Mamiya America Corporation.

## Pro Cabin 67 Z Projector

Compact, lightweight and easily portable, the 67 Z projector is designed for the professionals who want to impress editors and art directors with their superior images. It will also be welcomed by lecturers who wish to dazzle their audiences with the spectacular screen images only medium format transparencies can create.

Using a 300W quartz-halogen lamp, it projects a brilliant image through a high quality optical system which consists of a coated metal mirror reflector, a convex / aspheric double condenser system with heat filter and a 150mm f/3.5 or 200mm f/4.5 projection lens. An efficient forced air system with air curtain and rotary fan cools the slide stage. Slide change is manual. Weight: 9.5 lbs., 4.3 kg  
With 150mm f/3.5 lens Cat. #600-401  
With 200mm f/4.5 lens Cat. #600-401



### Accessories:

Twin Slide Carriers (push - pull)

For 6x7cm slides in 8.5cm square glass mounts Cat. #601-421

For 6x6cm or 6x4.5cm slides in 7cm square glass mounts Cat. # 601-423

For 35mm slides in 5cm square mounts Cat. #601-425

120 film strip carrier (glass sandwich) Cat. #601-427