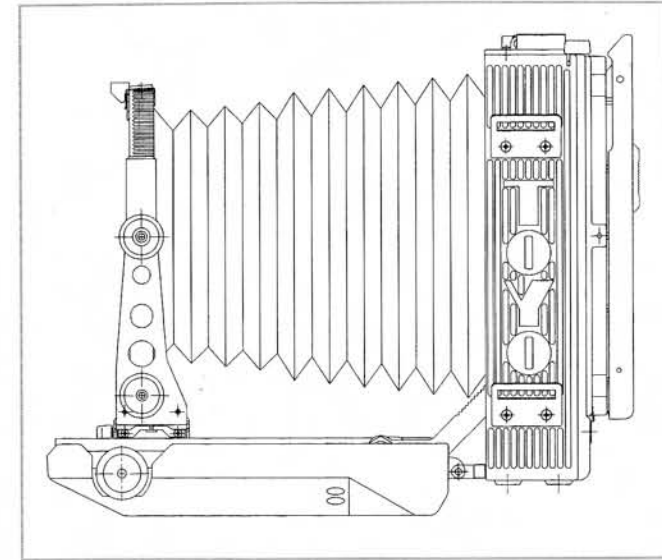


TOYO-FIELD 45CF Specification

| | |
|---------------------|--|
| Product No and Name | 180-106 (126) Toyo-Field 45CF |
| Camera type | Field type 4x5 camera |
| Body material | Glass fiber reinforced polycarbonates stainless steel, aluminum diecast |
| Format | 4x5 inch (6X7 & 6X9 Roll Film Back) |
| Lensboard | 110mmx110mm TF45A type lensboard |
| Applicable lens | 75mm~T500mm |
| Movement (Front) | |
| rise/fall | 49mm (rise 28.5mm fall 20.5mm) |
| tilt | 15° + 15° |
| swing | 20° + 20° |
| shift | 28.5mm+28.5mm |
| (Rear) | |
| tilt | 15°(back tilt only) |
| Camera back | Horizontal/vertical reversible type |
| Fast focusing | 157.5mm |
| Geared focusing | 142mm |
| Folded dimension | H201mmxW177mmxT102mm |
| Weight | 3.42 lbs. (1.55kg) |



TOYO-FIELD 45CF

INSTRUCTION MANUAL



MAMIYA AMERICA CORPORATION

8 Westchester Plaza Elmsford, NY 10523
Phone: 914-347-3300 • Fax: 914-347-3309
website: www.toyoview.com



TOYO-FIELD 45CF

Congratulations on selecting the new Toyo-Field 45CF camera. Your Toyo-Field 45CF has been carefully designed and manufactured for studio or on-location use. This sophisticated folding-bed type camera has many features you will enjoy. As part of the entire Toyo System, the Toyo-Field 45CF accepts many modular accessories to meet your specific requirements. The 45CF is a lightweight and durable camera that has been designed with smooth movements and easy to use controls, all at an affordable price. Please read this manual carefully before operating the camera and handle it with care.

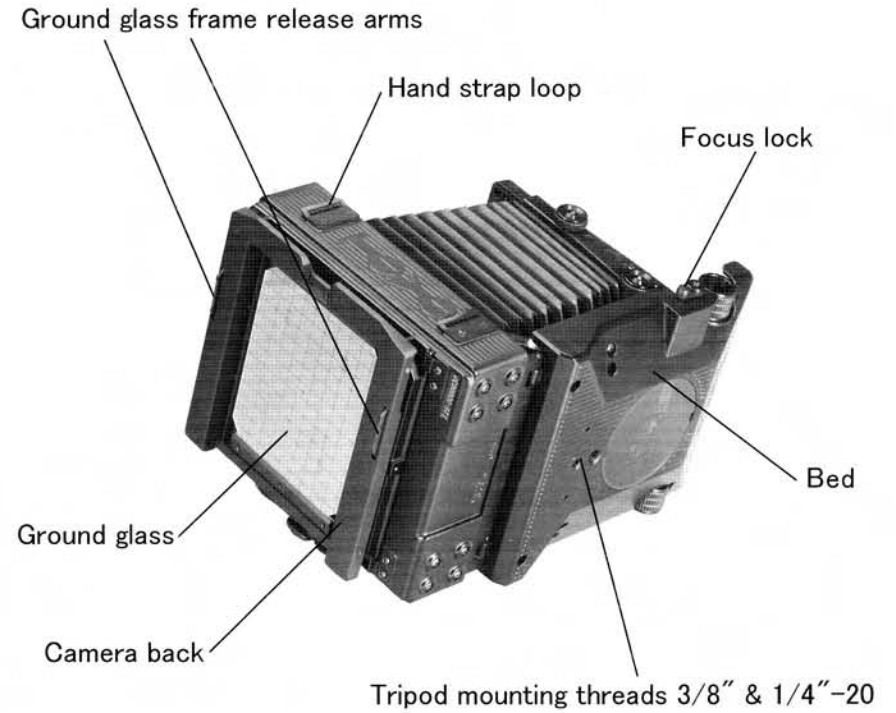
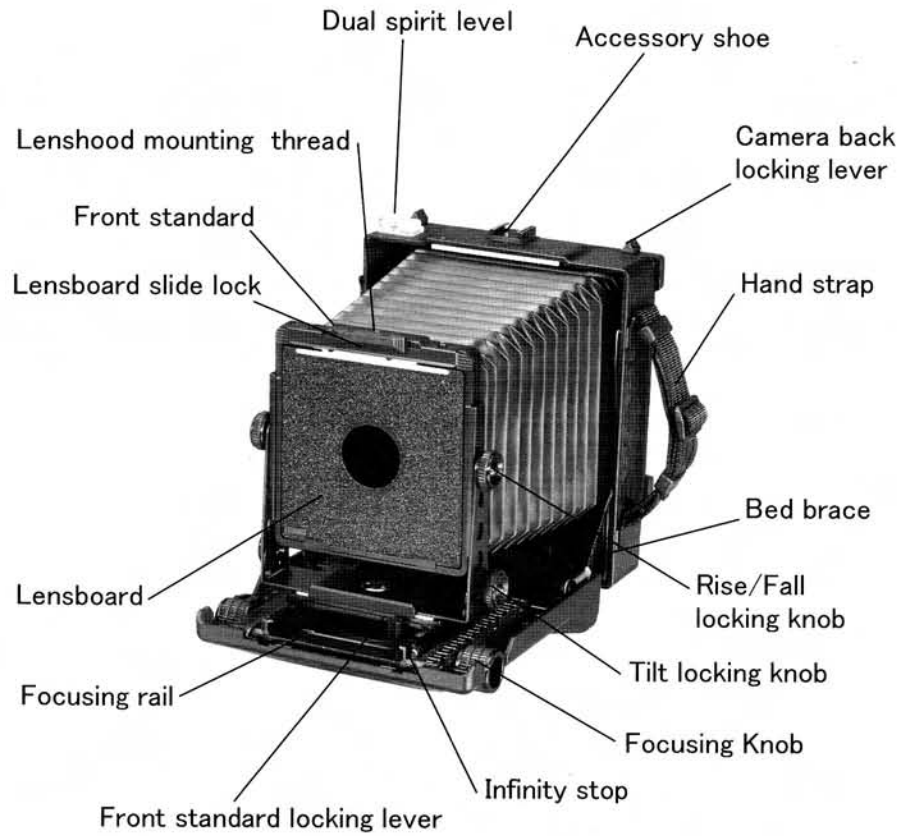


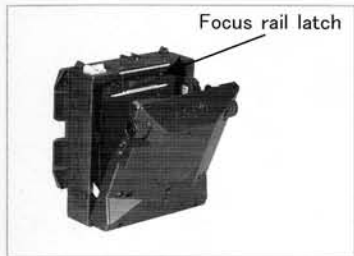
TOYO-FIELD 45CF

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Components

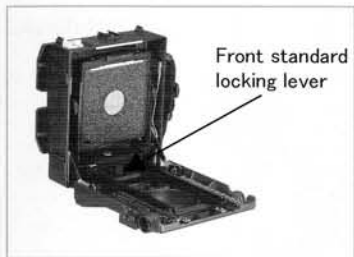




Please Note: In this manual, "left" and "right" refer to the photographer's left and right. "FRONT" refers to the lens side of the camera and "REAR" refers to the viewing side of the camera.

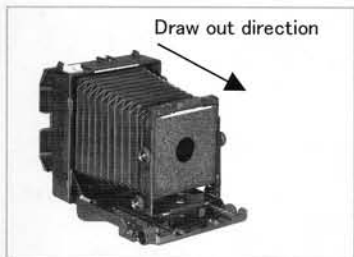
Setting up the camera

To open the camera, release the focus lock then turn the focusing knobs up to release the focus rail from the latch on the camera body.

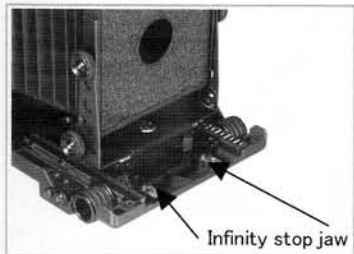


Open the rail bed. The bed stops automatically, locking into place to form a 90 degree angle.

Turn the focus knob until the focus rail meets the rail inside the camera housing.
Release the front standard locking lever.
(The locking lever unlocks the front standard at the center position)



Pull out the standard using the locking lever, and move to desired position. Lock standard using locking lever. (left or right position locks the standard in place.)



If you accidentally pull the front standard off the rails, carefully replace the front standard back onto the folds rails.

Then flip the infinity stop jaws up, to prevent the front standard from derailing.



Folding the camera

Although there are limitations to the size of the lenses that can be folded into the Toyo-Field 45CF. It can accommodate the most popular focal lengths.

Lens limitation guide.

- > Front lens mount : up to 62mm in diameter
- > The length between the lensboard surface and the front end of the lens : up to 40mm.
- > If the lens is larger, please remove it before folding the camera.



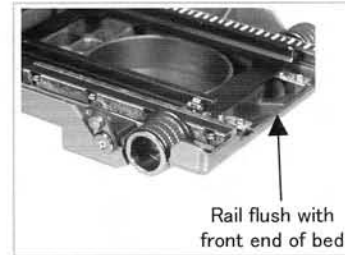
Unlock the focusing lock lever. The focusing lock lever locks the front standard when you lift up the lock lever, and unlocks when you push it down.

Put all movements in their neutral default position. Turn the focusing knobs and move the rail closer to the camera body.



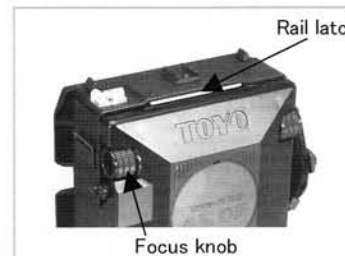
Unlock the front standard lock lever (center position) and push the front standard into the camera body onto the short rails at the back of the camera body.

Lock the front standard in place by turning the front standard lock lever to either the left or right.



Turn the focusing knobs and move the rails away from the back rails to create a gap over the hinge. The folding position of the rails is when the front end of the rails meet flush with the front end of the rail guide.

Push the left and right bed brace down to release them from the locking position and close the rail bed.



Turn the focusing knobs down and move the rails up to engage with the latch of the camera body.

IMPORTANT:

All movements must be at the neutral (default) position! The front standard lock lever should be at either left or right position! (The camera cannot be folded with the lever in the center position.)
Once the camera is closed, lock the focus lock to prevent the camera from opening accidentally.

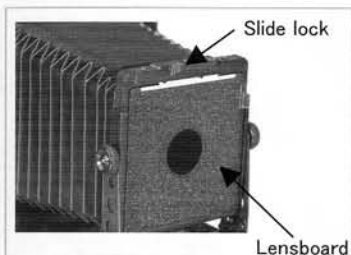


Lensboard

Mounting the lensboard

Facing the front of the camera, push the slide lock at the top of the front standard to the right.

Insert the bottom part of the lensboard first. (A silver line across one side of the lensboard indicates the topside of the lensboard.)



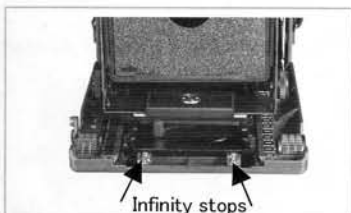
Seat the lensboard flush, into the front standard. Push the slide lock at the top of the front standard left to lock the lensboard in place to secure it.

IMPORTANT: Always hold the lensboard until it is secured with the slide lock!

Removing the lensboard

While holding the lensboard, push the slide lock at the top of the front standard to the right. Remove the lensboard.

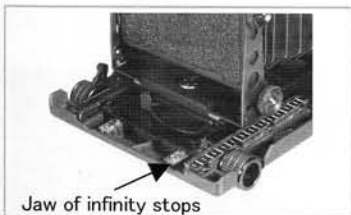
IMPORTANT: Please hold the lensboard before unlocking the slide lock.



Infinity stops

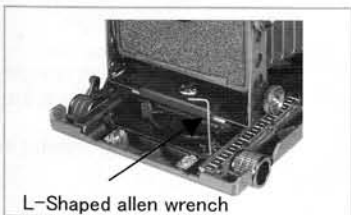
The infinity stops (located at the front of the rails) should be fixed at the position where the lens being used is focused at infinity.

An L-shaped allen wrench is supplied with the camera body for unlocking and re-setting the infinity stops.



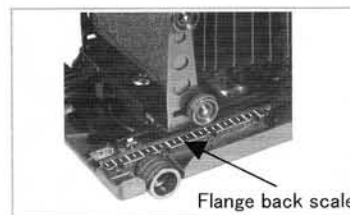
The jaws of the infinity stops can be folded when not in use, however be careful when pulling out the front standard so as not to down derail it from the camera.

To determine the infinity position, mount the lens and focus on a distant subject. Do not use the focusing knob for this procedure. Slide the front standard back and forth, then lock in place with the front standard locking lever.



Please be careful to keep the lens and film surface parallel when determining infinity.

NOTE: Additional infinity stops are available as accessories.



Reference scale

Flange back scale

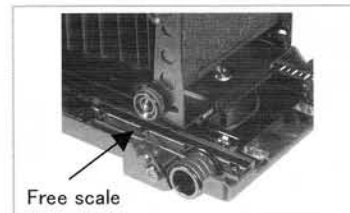
The flange back scale is at the left side of the camera and marked at 5mm increments.

The flange back is measured from where the front end of the front standard base stops on the scale.

NOTE: The flange back scale should only be used as a general guide.

Free scale

The free scale is at the right side of the camera. The scale can be penciled in and erased. It can be used for focus or bellows factor reference.

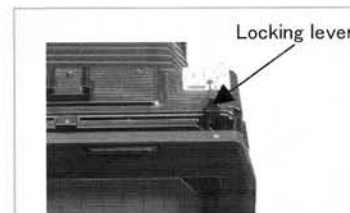


Hand strap

The hand strap loops are on both sides of the camera body for left or right handling.

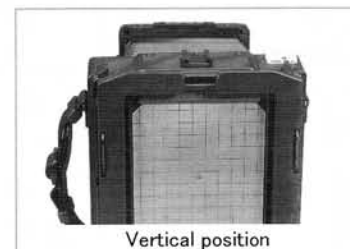
Camera back

The camera back can be removed from the camera body and placed in either vertical or horizontal position.

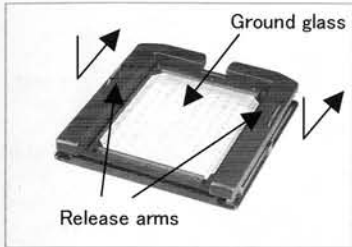


To remove the camera back, pull the two locking levers out. The two locks are located on top of the camera.

To mount the camera back, reverse the procedure.



The camera back accepts cut film holders, TOYO Roll Film Holders 67/45, TOYO Roll Film Holders 69/45 and Polaroid holders without removing the ground glass frame.

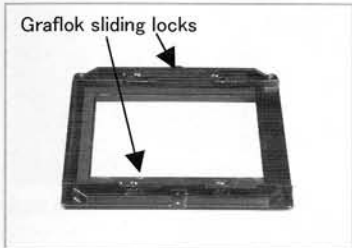


Ground glass frame

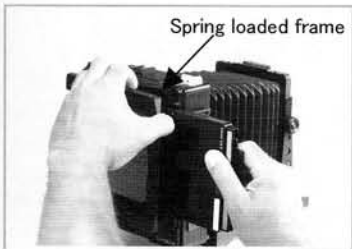
The ground glass frame can be removed by pushing in the two release arms located on the frame's left and right side and sliding them forward.

Slide the two release arms towards the film insert opening of the film back. When the ground glass frame is removed, various film holders with Graflok type locking can be used. (Note: Please be careful when removing the ground glass frame. Do not let the frame fall as the shock may damage not only the ground glass, but the frame itself.)

To secure film holders with the ground glass frame removed, use the two slide locks (Graflok) on the camera back.

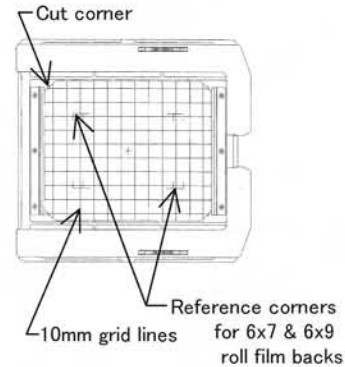


To attach the ground glass frame, slide in the frame slightly from the film inserting side. Please note that the two slide locks on the camera back should be in the unlocked position when attaching the ground glass frame.



Inserting film holder

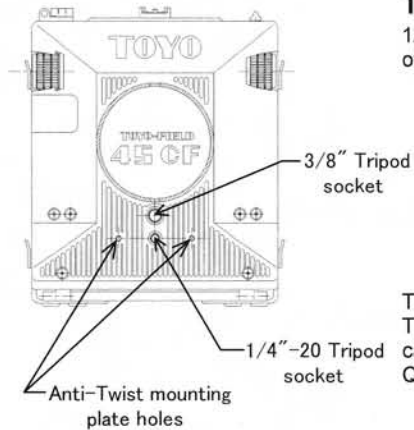
Pull the spring loaded ground glass metal frame out and insert the film holder. Make sure that the film holder is positioned correctly and gently return the ground glass frame back into place.



Ground glass

The ground glass has 10mm grid lines with reference corners for 6x7 and 6x9 roll film formats.

4 corners of the ground glass are cut off to visibly confirm that the focused image is within the image circle of the attached lens.



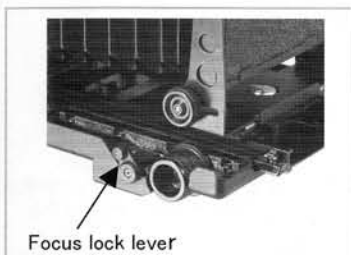
Tripod socket

1/4" tripod socket and 3/8" tripod socket are at the bottom of the rail cover.

There are two additional holes beside the tripod socket. These holes match the anti-twist plate for Mamiya cameras cat #211-571 (AQ701) when using the Quick Shoe made by Mamiya.



Anti-Twist plate



Focus lock lever

Focusing

Release the focus locking lever to unlock the focus knob.

Turn the focus knob and focus.

After focusing, push forward the focusing locking lever and lock the focusing knob.

Movement (Front standard)

Rise/Fall

Loosen the rise/fall locking knobs and tighten it again after composing. (Note: When using a heavy lens, it is recommended that the lens is held when loosening the rise/fall locking knobs to avoid the lens from dropping in the front standard.)

The neutral position is marked on the front standard. When the top of the metal frame is in line with the RED markings on the lens standard, the rise/fall is at neutral (default) position.



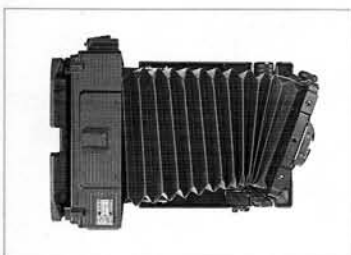
Rise/Fall lock knob

View-Rising Front



Tilt lock knob

View-Tilting Front



View-Swinging Front

Tilt

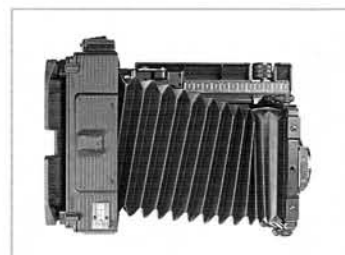
Loosen the tilt locking knob and tighten it again after composing.

There is a click stop at neutral position.

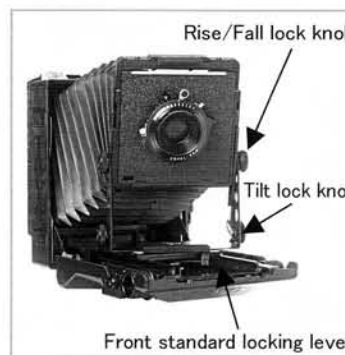
Swing

Unlock the front standard locking lever. Lock again after composing.

There is a click stop at neutral position.



View-Shifting Front



Rise/Fall lock knob

Tilt lock knob

Front standard locking lever

Shift

Unlock the front standard locking lever. Lock again after composing.

There is a click stop at neutral position.

Note: The front standard locking lever locks swing and shift movement.

Movement (Rear standard)

Tilt (Drop bed)

Push down the left and right bed brace and push the camera bed down.

The body stops automatically forming a 105 degree angle. (15 degrees from upright position) The body cannot be locked at an intermediate position.

Push down the arms to get back to neutral position or when folding the camera.

Note: Ensure the camera has no tilt when folding the camera closed.

All movements should be set to Neutral (default) position.

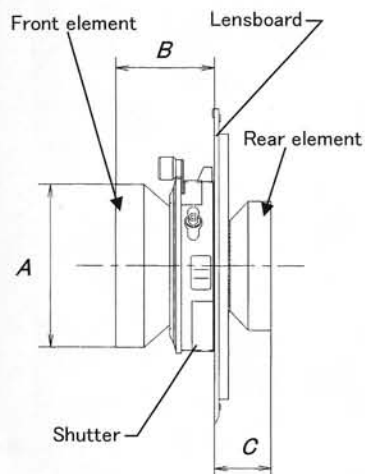


Bed brace

View-Drop bed

Lens selection

The Toyo-Field 45CF is designed to be used with various types of existing lenses, although it is limited in the use with flange focal distance. At standard composition (movements in neutral position), Toyo-Field 45CF accommodates lenses from 90mm wide-angle up to 300mm long lenses. To use an extreme wide-angle lens, which has a focal length shorter than 75mm, it is necessary to attach a recessed lensboard and drop the camera focusing bed down from its normal position. This eliminates the possibility of the focus bed from blocking the lens and causing an obstruction in the image. The front lens board can be adjusted to keep both the rear and front standards parallel. The following chart is the measured dimensions at the exact distance from the front of the lensboard to the film plane. Variations such as an accessory lensboard combination can change the setup. Recalculate figures for total distance by simply adding all the relative figures of the lensboard, if necessary - adapter boards, camera back and the distance between front and rear mounting surfaces



Applicable lenses

The camera flange back is 80mm~360mm. That means the camera can be focused at infinity when the lens flange back is within this figure.

However, when using a 75mm lens, the image will be cut off by the rail bed in the vertical position. With lenses of 90mm there will be no cut-off if the camera settings are at neutral position.

Maximum retractable size of lens

- A : 62mm dia. max.
- B : 40mm max.
- C : 43mm max

Flange back compensation table

Camera Backs

| | | |
|-----------------|--------------------------|---------|
| #180-805 (8005) | Standard Camera back 4x5 | +17.6mm |
| #180-719 (1045) | Quick Roll Slider | +42.9mm |

Lensboards

| | | |
|------------------|---|---------|
| #180-638 (117) | Flat Lensboard for Linhof Standard | +2.1mm |
| #180-621 (1601) | Flat Lensboard for Toyo-Field 45A, All and CF | +2.2mm |
| #180-637 (5081) | Flat Lensboard for Graphic Standard | +1.9mm |
| #180-640 (12040) | Recessed Lensboard for Toyo-Field 45 All and CF | -12.5mm |

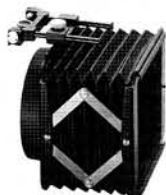
Adapter Boards

| | | |
|-----------------|--|---------|
| #180-636 (1630) | Flat Adapter Board for No. 5081 board | +10.0mm |
| #180-635 (1631) | Flat Adapter Board for Linhof standard | +9.1mm |
| #180-633 (1632) | Flat Adapter Board for Horseman Board | +4.4mm |
| #180-634 (1637) | Recessed adapter for Horseman | -24.8mm |

Maintenance

To ensure a long life for your new camera, avoid contact with sand, dirt, dust, excessive heat and chemical solvents. An occasional cleaning with a brush to remove debris and a damp cloth will keep your camera working for many years.

Optional accessories



Compendium Lens Hood



View- attached on 45CF Camera

Compendium Lens Hood

A lens hood is essential for the elimination of extraneous light and flare, which can seriously deteriorate image contrast and sharpness. It is particularly important when working in the outdoors where sun and bright skies can cause flare in even the finest multi-coated lenses. The Toyo Pro Compendium Lens Hood works with a wide variety of lens brands and focal lengths, and flexibly adjusts regardless of the lens position or camera movement used. It also features a swing-up mount for easy access to shutter controls.

Since large format cameras accept a wide selection of lenses from many manufacturers, you might need a variety of filter sizes. The Toyo Pro Compendium Lens Hood provides an elegant solution with the gel filter holders, both 3" and 4". Additionally, optional Extension Rods (#180-604) can be used with the built-in mount frame to extend the hood out further for very long lenses.

USA # Int'l # Item/Description

- 180-623 (1660) Pro Compendium Hood with 3" & 4" square gelatin filter holders
- 180-604 (1662) Extension Rods
- 180-609 (1663) Gelatin Filter Holder set 3", 4" square

4x5" Precision Cut Film Holders

To match the precision of the 45CF camera, Toyo manufactures their own precision sheet and roll film holders. The 45CF also accepts other brands of sheet and roll film holders including 6x12cm panoramic backs, Polaroid® Instant Proofing Holders, Kodak Readyload® and Fuji Quickload® film holders.



4x5" Precision Cut Film Holder

Twin Pack TOYO 4x5" Double Cut Film Holder

With a precision metal septum, durable construction and exacting film plane tolerances within 0.003", dark slides slip in and out smoothly without ever disturbing holder position. Wide flap opening permits easy film loading.

USA # Int'l # Item/Description

- 180-903 (10141) Twin Pack TOYO 4x5" Double Cut Film Holder
- 180-910 (10142) 4x5" replacement darkslide for 180-903

Precision 120 Roll Film Holders

These are designed with a 4x5 mounting plate for easy and direct insertion into Toyo 4x5 camera backs without removal of the ground glass. May also be attached to any brand view camera with Graflok back. TOYO 4x5 backs also allow use of these holders without the removal of the ground glass.



Precision 120 Roll Film Holder

TOYO 180-725 & 180-726 120 roll film holders have a 4x5 Graflok mounting plate to fit any 4x5 camera with removable Graflok ground glass backs.

USA # Int'l # Item/Description

- 180-725 (8031) TOYO 67 / 45 120 Roll Film Holder 6x7cm For any 4x5 camera
- 180-726 (8033) TOYO 69 / 45 120 Roll Film Holder 6x9cm For any 4x5 camera

Focusing Hoods

Focusing hoods eliminate the need for focusing cloths. In the field, where wind and other elements can pose problems, focusing hoods are highly effective and convenient.

Toyo offers several solutions. Interchangeable on all Toyo 4x5 cameras, all Toyo focusing hoods feature a fast attaching spring-loaded pin and lock design. They also swing away from the ground glass for easy access to the entire focusing screen when using a focusing magnifier or loupe



4x5 Folding Focusing Hood

4x5 Folding Focusing Hood fits all TOYO 4x5

The Folding Focusing Hood is a valuable accessory which conveniently protects the ground glass while backpacking and eliminates the need for a focusing cloth in most lighting situations.
USA #180-808. Int'l #(2006)



Flexible Rubber Monocular Loupe

Flexible Rubber Monocular Loupe

The Monocular Focusing Hood has a single 1.5x magnifying eyepiece mounted atop a flexible rubber hood for light-weight and compact packing. It eliminates all extraneous light and can be used for corner-to-corner viewing of the ground glass. When detached from the camera, it can also be used as a magnifier for viewing an entire 4x5 transparency or negative on a light box.

USA #180-809. Int'l #(1024)



Binocular Reflex Mirror Hood

Binocular Reflex Mirror Hood

The Reflex Viewing Hood eases eye strain and allows convenient right-side-up viewing. The image remains reversed from right to left. The Reflex Viewing Hood features a special swing-away mounting frame. The frame has twin side locks that allow fast and easy attachment of the Reflex Viewing Hood in vertical or horizontal position. In addition, it has a removable 1.5x twin magnifying eyepiece.

USA #180-812. Int'l #(1026)



Balloon Focusing Hood

Balloon Focusing Hood

Compact and folding Balloon Focusing Hood uses bag bellows material to provide easy access and viewing of the ground glass.

USA #180-841. Int'l #(11425)

Lensboards

TOYO-FIELD 45A, 45AX, 45All & 45CF cameras accept TOYO 110mm square compact lensboards. Please consult the manufacturer of your lens for exact details on required lensboard size before ordering. Listings below applies for most brand lenses.

The TOYO 45CF accepts 90mm lenses on flat lens board with movement capability.



Wide Angle Lensboard

USA # Int'l # Item/Description

180-621 (1601) TOYO #0 Flat Lensboard for 90mm-150mm

180-622 (1601) TOYO #1 Flat Lensboard for 180mm-210mm

180-613 (1601) TOYO #3 Flat Lensboard for 240-500mm

180-640 (12040) TOYO #0 12mm Recessed WA Lensboard, for 58-75mm lenses**

**12mm recessed boards are recommended for 58-75mm lenses and provide easy access to lens controls.



Shutter Release Adaptor

Shutter Release Adaptor

Allows cable release to easily attach to lens mounted on recessed boards.

USA # Int'l # Item/Description

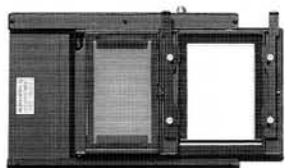
180-641 (12045) for Copal #0 shutter

180-642 (12046) for Copal #1 shutter

TOYO-FIELD 45CF

Digital Back Adapter / Quick Sliding Roll Film Back Adapter & Accessories

TOYO QRS adapter carriage slides a digital back or roll film back and ground glass in and out of place for fast change from ground glass focusing to shooting.
Built-in dark slide engages when ground glass is in film plane.



Quick Roll Slider

180-719 model fits all Toyo 4x5 cameras and all brand 4x5 cameras with international Graflok type backs by simply removing the ground glass frame. The TOYO QS adapter accepts all 6x7cm and 6x9cm Graflok type roll film backs including TOYO 180-727 and 180-728, Mamiya RB67, Graflex, and Horseman brands in 6x7 and 6x9cm.

USA # Int'l # Item/Description

180-719 (1045) Universal Graflok Sliding Adapter for TOYO 45C /Graflok

180-810 (1039) Folding Focusing Hood for 180-832 & 180-719

180-811 (1040) Monocular Focusing Hood for 180-832 & 180-719

180-727 (8032) TOYO 67 6x7cm 120 Roll Film Holder for 180-719

180-728 (8034) TOYO 69 6x9cm 120 Roll Film Holder for 180-719

Focusing Magnifier

The Toyo 3.6x focusing magnifier is placed directly on the ground glass for critical focusing. The long tubular design offers a comfortable distance for viewing and has a rubber base to protect the ground glass.

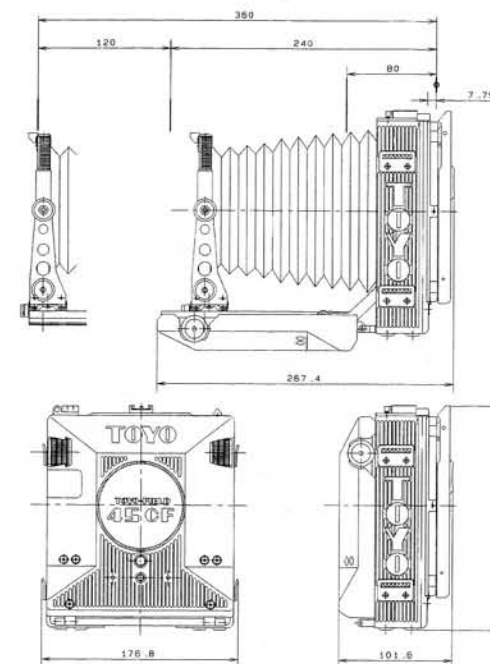
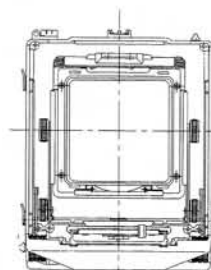
USA #180-301.



Focusing Magnifier

TOYO-FIELD 45CF

Dimensions & Flange Back



Minimum focusing distance

Schneider Apo-Tele-Xenar 400mm - approx. 4.2m

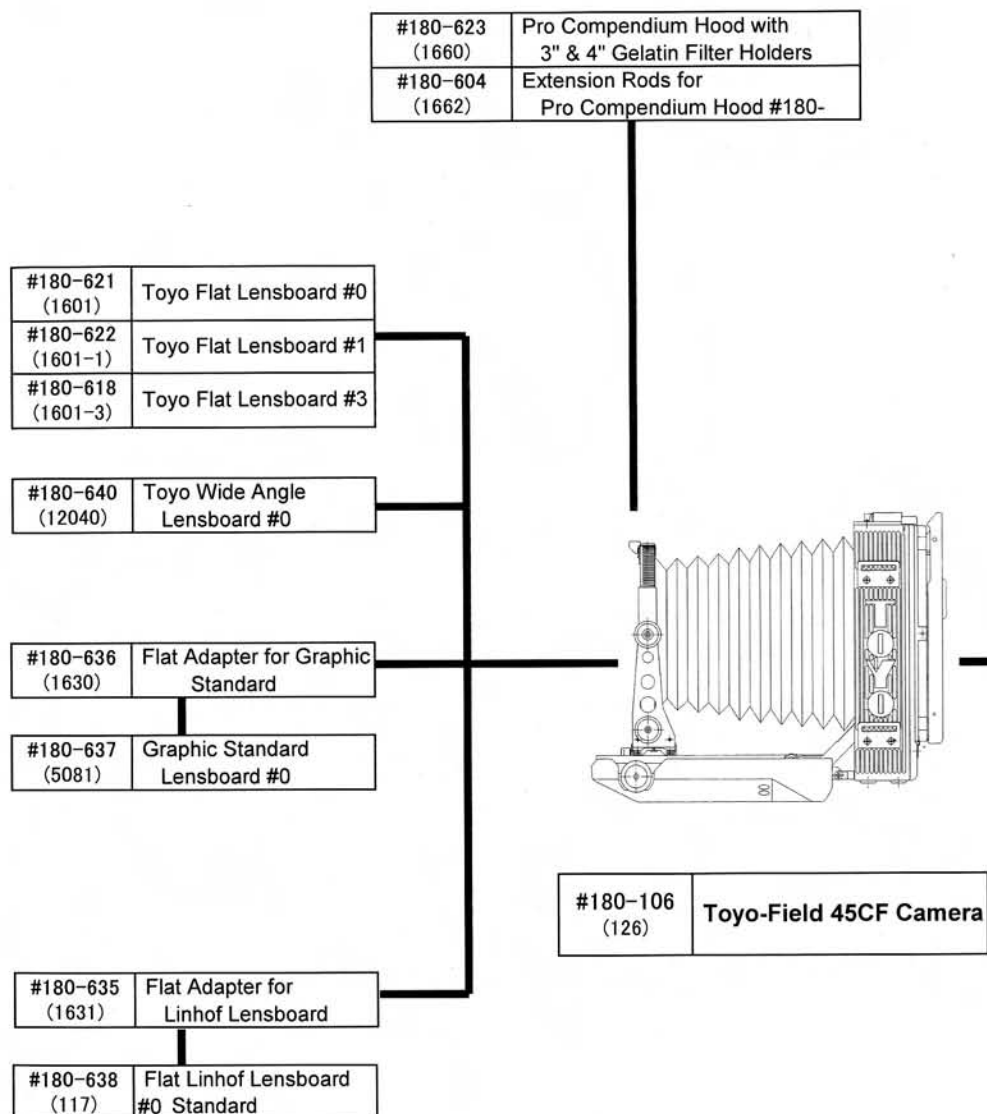
Nikkor M 300mm - approx. 2m

Nikkor TED 360mm - approx. 2m

Fujinon T 400mm - approx. 2.5m

Congo T 500mm - approx. 5m

TOYO-FIELD 45CF



TOYO-FIELD 45CF

