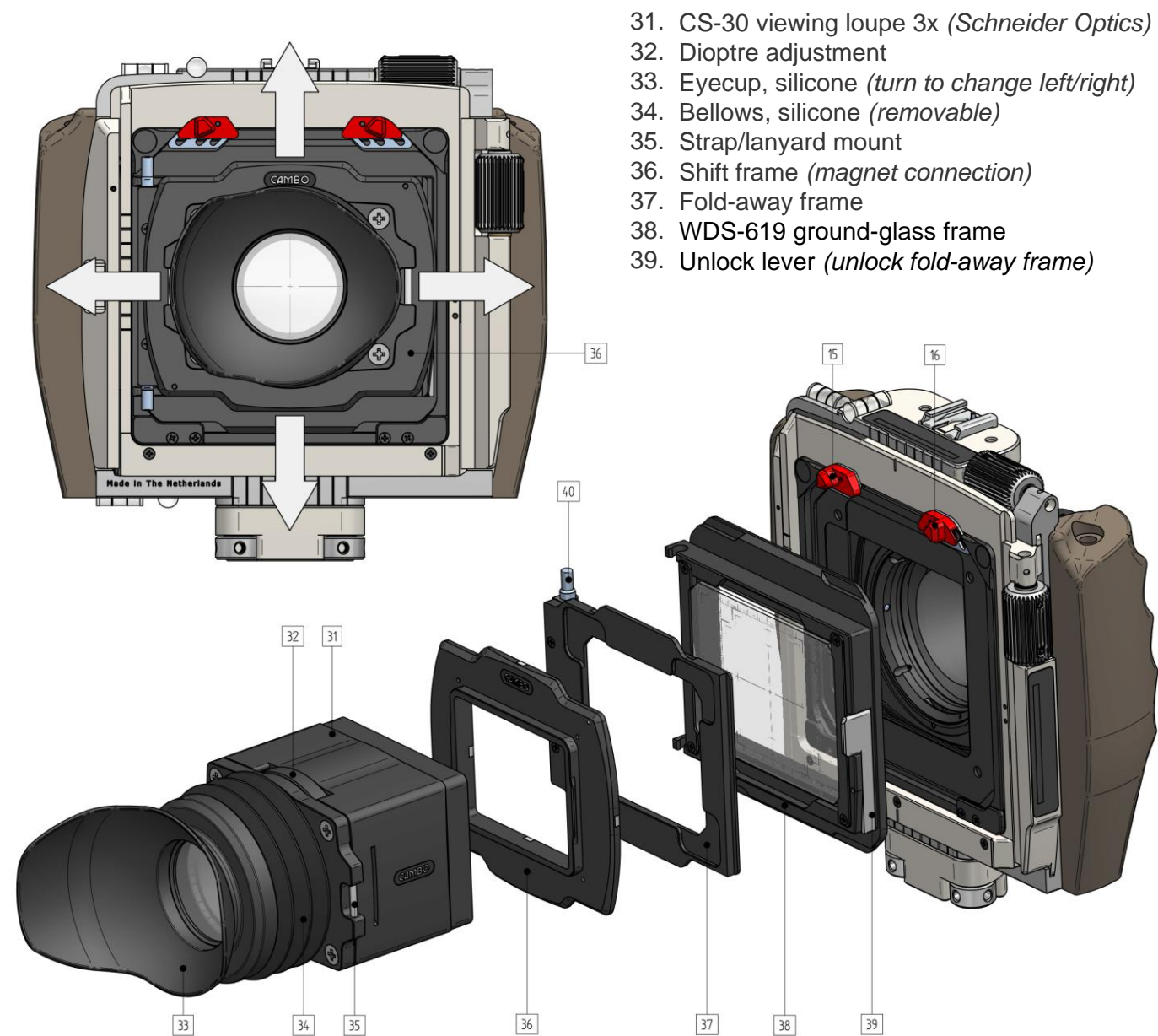


M. WDS-619 / WDS-630 viewing loupe



31. CS-30 viewing loupe 3x (Schneider Optics)
32. Dioptre adjustment
33. Eyecup, silicone (turn to change left/right)
34. Bellows, silicone (removable)
35. Strap/lanyard mount
36. Shift frame (magnet connection)
37. Fold-away frame
38. WDS-619 ground-glass frame
39. Unlock lever (unlock fold-away frame)


CAMBO
 Anniversary Edition

Wide RS



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CAMBO

2011

MAIN OPERATING INSTRUCTIONS

J. USE OF LENS PANELS

In order to take the most advantage of the lenses that are used, please understand that every lens has a limited image circle and viewing angle specified by the lens manufacturer. Generally the indicated image circle is what the lens manufacturer has defined as committing to the quality standards for that specific lens. Cambo does not change these specifications and users are referred to Rodenstock's and Schneider's information about these lenses.

Some specific notes on a few lenses:

WDS-544 uses a Rodenstock 5.6/23HR Digaron-S, image circle limited to 70mm, which means limited shift possibilities, depending upon cropping. There is not yet a centre-filter available.

WDS-545 uses a Schneider 5.6/24XL Digitar, image circle limited to 60mm, which means almost no shift possibilities, nevertheless depending upon cropping. There is a centre-filter available.

WDS-546 uses a Rodenstock 4.0/28HR Digaron-S, image circle limited to 70mm, which means limited shift possibilities, depending upon cropping. There is NO centre-filter available.

WDS-551 uses a Schneider 5.6/35XL Digitar, image circle limited to 90mm, which means about 18mm shift possibilities, depending upon cropping. There is a centre-filter available.

WDS-552 uses a Rodenstock 4.0/35HR Digaron-S, image circle limited to 70mm, which means limited shift possibilities, depending upon cropping. There is NO centre filter available.

For all other lenses above 35mm focal length there is no need for a centre filter.

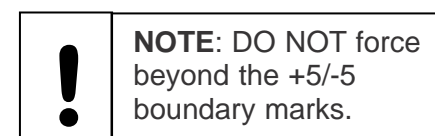
K. WTS TILT-SWING LENS PANELS

Refer to paragraph 3.A for mounting the panel to the body.

The WTS Panel allows an angle adjustment between +5 and -5 degrees in both swing and tilt direction for setting Scheimpflug corrections. These can be used separately as well as simultaneously, using 2 adjustment knobs, top knob T for tilt, side knob S for swing.

The lens plane and CCD are parallel when the tilt and swing indicators are set to zero on the scale. This zero-position is reached when the bearing snaps into the lock, where the drive knobs become slightly loose by purpose.

To apply tilt only use knob T, to apply swing only use knob S. When needed, a combination of both can be applied.



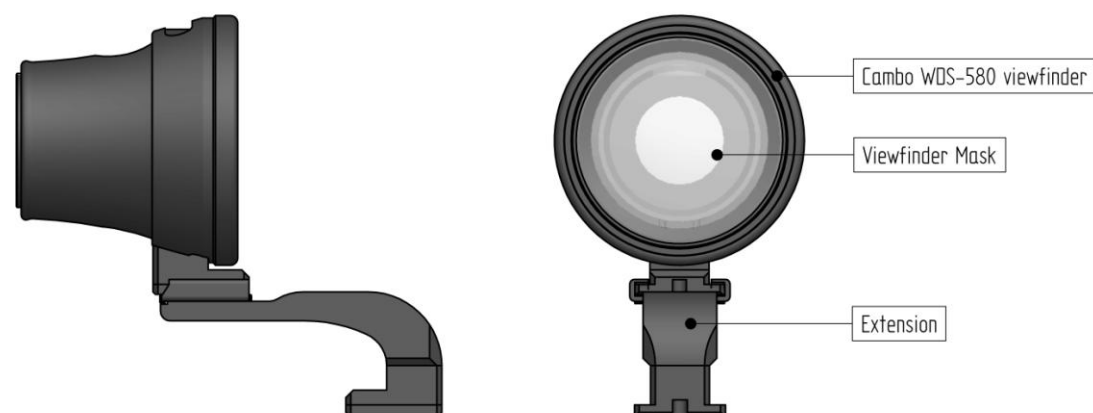
L. LENS CAST

Under certain circumstances there may be occurrence of lens cast, caused by the light striking the CCD under an angle due to either shifts or very short focal length. The effect may differ quite a lot from one CCD to another and is not a constant factor. This effect is acknowledged by all digital back manufacturers and each have their own software solution for this.

We refer to the user manual of your specific digital back manufacturer to use the software tools provided with your digital back.

H. ACCESSORY MOUNT AND VIEWFINDER

On top of the main housing is a standard accessory shoe mount (4) which can be used for third party items based on the flash shoe mount or for Cambo's WDS-580 viewfinder. This viewfinder is optional and is not included with the Wide RS camera.



The WDS-580 viewfinder is a 120 degrees viewer used for indication of the framing of the image. It comes with an included extension bracket. Masks are available for most focal lengths. The viewfinder has a built-in spirit level for assistance with handheld shooting.

To mount the viewfinder slide it into the accessory mount from the backside of the camera. It can be mounted with or without the extension bracket. The advantage of using the extension bracket is that the viewfinder is lifted over the digital back closer to the eye of the photographer. Because the extension bracket introduces an extra joint, Cambo does not guarantee that the spirit level inside the viewfinder is exactly aligned with the ones on the main housing it selves.

Masks can be clipped to the front of the viewfinder. These masks feature a center pair of crosshairs and a frame for the current 37x49/40x55 CCD format. Aside the frame there is a set of millimeter scales which indicate the displacement of the images with the same amount of shift applied. The mask can be rotated while mounted to switch between landscape and portrait position. Masks are interchangeable on the WDS-580 viewfinder, release the masks by pulling close to the bottom click position.

I. LED LIGHT

The Wide RS system includes a removable LED light (25) which is convenient for use in darker environments, shining light over the distance scale, aperture and time settings of the lens. The actual LED unit is shifted in a frame which clips underneath the accessory mount (4).

It can be removed if not needed or for battery replacement.

When new delivered, the LED can be in demonstration mode, which means it will turn off automatically within four seconds. You may leave it this way, or take it out of demonstration mode by pressing and holding until the light turns off (at least 20 seconds).

Simply press for full power and instant ON/OFF. Squeeze for full-range brightness control.

To replace batteries, separate the case halves by unsnapping them at the base by the key ring (note small notch in key-ring hole). Remove old batteries and replaces with two CR-2016 lithium batteries with the + visible. Realign the case halves and snap shut.

1. INTRODUCTION

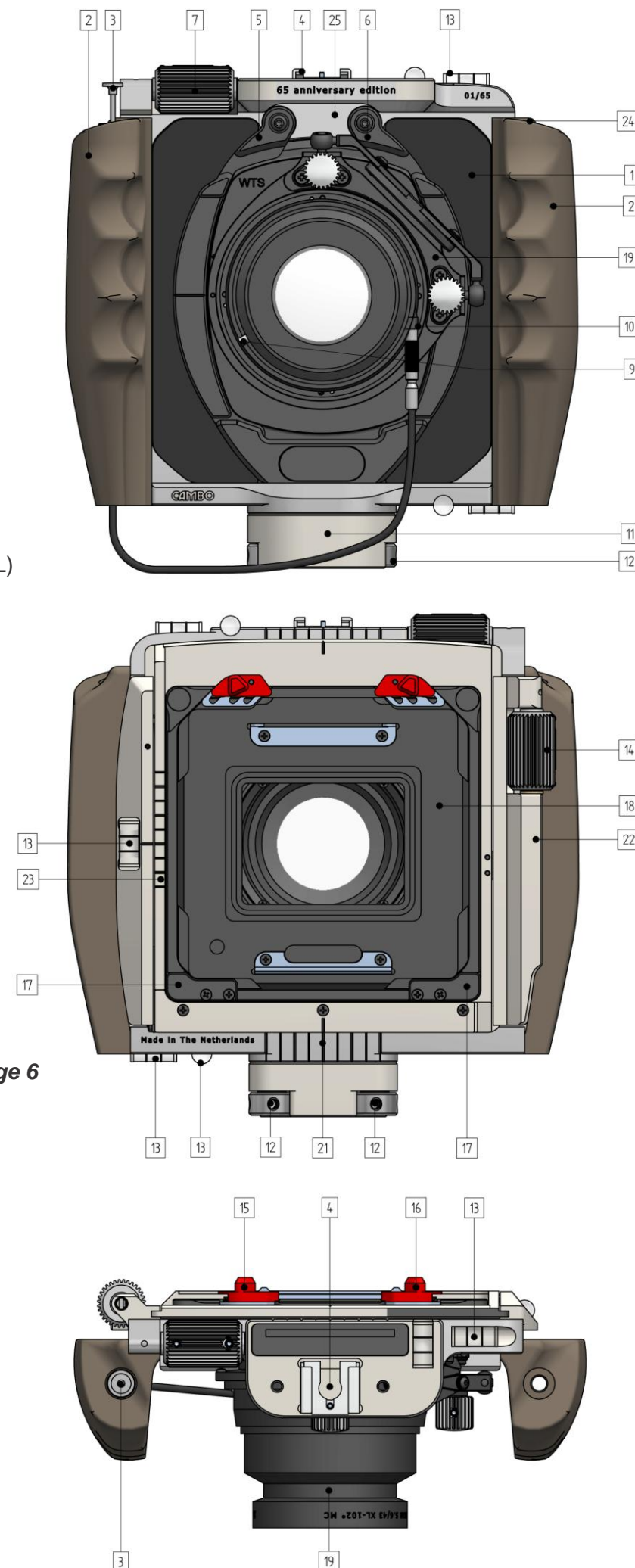
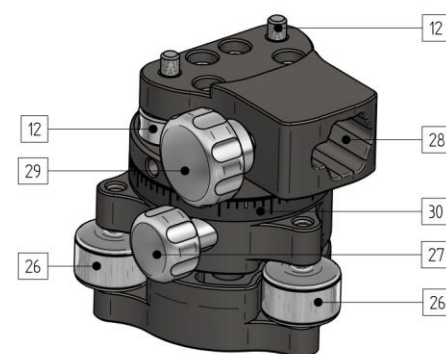
Thank you for choosing this Cambo product. This manual will give you basic information about the use and features of the Wide RS camera.

2. LIST OF FUNCTIONS

1. Main housing
2. Handgrip (left and right)
3. Cable release (removable)
4. Accessory mount
5. Lens-plate locking lever (left)
6. Lens-plate locking lever (right)
7. Drive knob for horizontal shift
8. Lens guards (exception: WTS and 28XL)
9. Flash contact
10. Cable release socket
11. Tripod mount block (removable)
12. Knobs for tripod mount
13. Spirit levels
14. Drive knob for rise & fall
15. Release knob interface plate (right)
16. Release knob interface plate (left)
17. Retainer hooks for interface plate
18. Adapter-plate (interchangeable)
19. Lens-plate + lens (interchangeable)
20. Millimeter scale for shift
21. Movement indicators horizontal
22. Millimeter scale for rise and fall
23. Movement indicators vertical
24. Left hand cable release option
25. Mount for LED light unit (removable)

WRS-333 LEVEL HEAD (optional) page 6

26. Level thumb screws
27. Locking knob, rotation
28. Spigot mount
29. Locking knob spigot mount
30. Scale, degrees



3. INSTRUCTIONS

The main housing (1) accepts WDS/WTS-lens-panels on the front and SLW-Interface plates on the backside. WDS lens-panels are available in a broad variety between 23 and 120 mm focal lengths and with other focal lengths on special request. WTS lens-panels are specific lengths.

A. MOUNTING A LENS PANEL

To mount a WDS lens-panel (19) lift the 2 levers (5), slide the bottom of the Lens-plate into the slot at the bottom side of the main housing, put the lens-panel in place and lock both levers (5). The lens-guards (8) will help you to get a good grip on the lens-panels. **Note:** the WTS and 28XL lens-panels don't feature lens-guards, because of limited clearance around the lens. The lens-guards may come positioned in either way, top to bottom or left to right mounted. The position cannot be changed. Note that the lenses look to be mounted reversed, however, this is for your convenience, to avoid the cable release hanging in front of the lens, and to give easier access to the shutter's cocking lever in handheld position.

B. MOUNTING AN INTERFACE PLATE

Regarding SLW interface plates, there is a current choice between SLW-80 for Hasselblad-V compatible backs, SLW-89 for Hasselblad-H compatible backs, SLW-81 for Leaf Afi/Sinar HY6 compatible backs, SLW-88 for PhaseOne/Mamiya 645 Afd compatible backs and SLW-87 for Contax 645 compatible backs. All plates are interchangeable.

To mount a SLW interface plate, shift the two knob-sliders (15,16) diagonal towards each other. The interface plate (18) can be hooked firmly under the retainers (17), then put the interface plate flat and lock the two knob-sliders over the interface plate. Interface plates can be mounted in landscape position, or portrait 90 degrees left or 90 degrees right, whichever way is more convenient for you in relation to access to CF-cards, batteries or cable locations.

There is an option for a Ground Glass Frame with CCD-markings (**WDS-619**). This frame mounts in exactly the same way like the interface plates and replaces the interface plate while viewing.

C. HANDGRIPS AND CABLE RELEASE

The main housing has two integrated handgrips (2) which allow for steady handheld shooting. Both handgrips have a hole (24) for hosting the cable release (3) on either left-hand or right-hand side by choice. The cable release is easily removable for independent use when vibrations need to be avoided. The cable release needs to be connected to the cable release socket (10) on the WDS lens-panel. All lens-panels with either Schneider or Rodenstock lenses will have a Copal 0 shutter, with shutter speeds between 1/500 and 1 second, B and T. These shutters need to be cocked between each capture. The Schneider Electronic Shutter is only available on request.

D. MOUNTING THE DIGITAL BACK

The SLW interface plate has a great similarity to the corresponding Medium format camera that the digital back is supposed to be compatible with. The Hasselblad-V, Mamiya Afd and Contax 645 interface plates have no moving parts. The Hasselblad-H interface plate has one sliding knob above the digital back (in landscape position) to open and lock the digital back in place, while the Leaf Afi/Sinar HY6 interface plate has a locking lever that operates all four pins simultaneously. All digital backs need to be connected with their brand-specific "synchro release cable" to the synchro flash contact (9) on the WDS lens-panels. Please follow the instructions of the manufacturer of the digital back for further settings and operation.

E. MOVEMENTS - SHIFT - RISE & FALL

The Wide RS has movements for horizontal shift as well as vertical shifts, which can be used in combination. These movements can be used for perspective control, for image displacement, but also for stitching, which allows the user to take more advantage of the image circle of certain lenses, or to create panoramas with the maximum viewing angle, or to create larger file sizes.

The horizontal shift is operated by drive-knob (7) which is located on top of the main housing. The drive has an accelerated gear, which moves fast and precise. From the center position movements go up to either 20mm left or 20mm right, with click indents each 5, 10 and 15mm. The vertical shift (rise & fall) is operated by drive-knob (14) on the right-hand side of camera. The vertical shift allows for 25mm down towards the lens, which places the image up to 25mm upwards, or up to 15mm up from the lens-center, which places the images up to 15mm downwards. Also here are click indents every 5, 10, 15 and 20mm.

Both movements drive the image plane, which allows the user to take multiple images within the same focal plane, ideal for stitching. There are several popular stitching programs, including Photoshop's photo merge tool.

Please note that above movements are the mechanically feasible movements, which do not by default reflect the optical possibilities of all lenses. Each lens has its own possibilities and limits. For optical explanations see chapter J. (use of lens-panels)

F. MOVEMENTS AND SCALES

The horizontal movement can be followed and repeated viewing the scale (20) on top of the main housing. The scale is divided into millimeters for your convenience. There are also movement indicators (21) engraved on the back side of the main housing which are always visible from behind the camera either under or above the vertical moving plate, depending upon its position.

The vertical movement can be followed and repeated viewing the scale (22) on right-hand side of the main housing. The scale is divided into millimeters for your convenience. There are also movement indicators (23) engraved on the left-hand back side of the horizontally moving plate which are always visible from behind the camera, independent of the position of the plates.

G. TRIPOD MOUNTING BLOCK

The Wide RS comes with a removable tripod mounting block, which is already mounted in place. It is equipped with a 3/8" thread. To ensure maximum protection of your investment, Cambo strongly advises you to utilize the 3/8" thread of your tripod or quick release plate. The height of the mounting block (11) allows the user to take full advantage of the 25mm vertical shift when mounted on a larger tripod. However, to minimize the size of your camera, this mounting block can be removed by disengaging the two larger screw studs (12). There will still be a 3/8" mount in the bottom frame of the main housing.

G2. WRS-333 LEVEL HEAD

The optional Level Head replaces the original mount using both studs leveled with 3 individual thumbscrews (26), 2 for horizon and 1 for per Camera can be rotated 360 degrees, with clear detents at both 180 po settings at your convenience and swivel the Head back to original posi can be locked with the knob (27). The WRS Level Head also features a Spigot Mount (28) at the front to choice such as lens shades, flags or sun shades.

