User Manual – Mania MFZ Camera

1. General Information

Congratulations on acquiring your exclusive Mania MFZ camera!
Your camera has been carefully handcrafted from solid oak. Due to the natural material, there are a few important points to keep in mind:

Unpacking

The cameras are shipped pre-assembled for transport. It is common for buyers to initially assume that parts are missing, as some components are already attached to the camera.

- Figure #1 shows all individual components.
- For the MFZ 6×17, some parts are additionally located inside the camera (see Figure #2).
- For the MFZ 4×5, a small bag containing screws, filter holders, and rubber bands is included in the package (see Figure #3).
  Attention: Do not accidentally dispose of this bag with the packaging!

Wood

Wood – a natural material.
The Mania MFZ is made from high-quality oak. As wood is a natural product, no two pieces are identical – variations in color, grain, or small knots are typical characteristics and make each camera unique.
Especially in the "Limited Editions" with exotic veneers, the individual structures and grains of the front panels give each camera a distinct character. These features are not defects but highlight the special appeal and uniqueness of every camera.

Initial Use

When new, some parts may feel stiff at first. Operate the closures several times and occasionally remove the intermediate frames. After a few weeks, the oils and waxes will have fully settled, making operation easier.

Storage

Store the camera and accessories together whenever possible. Wood reacts to changes in humidity. Storing components separately for extended periods may cause slight warping, preventing exact alignment.
If this occurs, store all components together for an extended period – the fit usually restores itself.
Avoid extremely dry or humid environments: Both can damage wood or affect magnet attachment points.
Keep rear panels attached and closures closed during storage to prevent dust and deformation.

Cleaning

The camera is treated with durable hard wax oil and can tolerate brief contact with water or other liquids.

After contact with water, other liquids, or saltwater:
Wipe immediately and carefully with a slightly damp cloth to prevent staining.

2. Operation

The Mania MFZ is a configurable pinhole camera with numerous adjustment options. Before loading film, take the following steps to prevent unwanted light leaks:

Preparations Before Loading Film

- Determine pinhole distance (focal length) by the number of intermediate frames.
- Select the front panel.
- Choose the film format.

One intermediate frame increases the focal length by 20mm. Select the appropriate pinhole diameter for your desired focal length. Refer to the included "Speculation Wood" for an overview.

Identifying the Pinhole

The used pinhole diameter is printed at the top of the front panel.

pinhole distance (focal length)	recommended pinhole size	Marking below the panel
35mm-55mm (75mm)	0,2mm	0,2mm
(35mm) 55mm - 95mm	0,3mm	0,3mm
115mm <	0,4mm	0,4mm

Installing the Front Panel

- Hold the panel at the lower filter strip and carefully pull forward to remove.
  Note: Do this on a table or close to the floor to prevent accidental drops of intermediate frames.

Roll Film Format

- Insert the desired film format using the supplied inserts. These fit precisely into their holders (Figures #4a + #4b).

Assembly

- Place the chosen front panel into the front intermediate frame.
- Ensure the correct frame (with markings) is in front (see Figure #5).
- Select a second intermediate frame without markings so it does not interfere later.
- If the front panel has only one pinhole, you can rotate the front frame freely.

- Use a maximum of three intermediate frames without additional stabilization measures (e.g., Stabilization Wood #13 (accessories)).

Exposure Vignetting (Reference Only)

focal length	4x5 Inch	6x6	6x12	6x17	4x5 Inch (TSP)	6x6 (TSP)	6x12 (TSP)
35mm	strong	slight	strong	✗	✗	(strong)	✗
55mm	slight	✓	slight	strong	strong	slight	strong
75mm	✓	✓	✓	slight	slight	✓	slight
95mm	✓	✓	✓	✓	✓	✓	✓

3. Loading Film

4×5" Back

- Use standard sheet film holders (e.g., Fidelity or Lisco) with integrated magnetic holder.
- Procedure: Insert holder → attach magnetic mount → done.

For thicker holders (not for MFZ e-Series):

- Screw the four included black screws into the side threads (Figure #6).
- Secure the holder with the supplied rubber bands.
  Caution: Rubber bands may snap – two spare bands are included.

For instant film holders (Polaroid or Fuji Instax):

- Ensure the rubber band does not cover the film exit slot (see Figure #6).

Roll Film Back

- Place the film roll in the left compartment.
- Thread the film into the right empty spool.
- Turn both film transport wheels until the vertical arrow is visible on the left side.
- Close the back cover (watch your fingers!).
- Advance the film to the first frame. **IMPORTANT:** Always turn both wheels during film transport.

Frame Counter Window:
Displays the current frame number.
Follow the manufacturer's numbering for each film format.

format	image numbers
6×6	1–12
6×12	1○, 3○, 5○, 7○, 9○, 11○ (all odd numbers)
6×17	2, 5, 8, 11

(○ represents the first dot or star after the number on the back of the film, depending on the film manufacturer.)

IMPORTANT: The frame number must always be centered in the film window to avoid overlapping exposures.
Keep the film number window closed when not in use and protect it from direct sunlight.

4. Measuring Exposure

- Use an app like „Pinhole Assist", which allows setting pinhole distance, pinhole size, and film type.
- Alternatively, use a handheld light meter or an app in combination with the included Speculation Wood.
- Tables on the Speculation Wood (with and without black shield effect) are also on pages 12–13, and can be accessed as a PDF on your smartphone.

5. Framing

- The camera and front frame have corresponding markings (see Figures #5 + #8).
- Connect the points using your eye or the Speculation Wood (Figure #9):
    - Rear point (film format limit)
    - Front point (above closure)
    - The area between these lines determines the horizontal framing.
- Repeat for vertical framing.

TSP (Twin Shot Panorama) Tip:
Connect the front and rear center points – this is the future seam of the panorama (Figure #8, line b).

Camera Alignment:

- Use the built-in spirit levels.

- For panoramas: Ensure the camera is level with the horizon; even small deviations are visible in the final image.

6. Exposure

Normal Shots

- Advance film to the first frame.
- Open the center shutter of the panel (except Shift Panel) according to the calculated exposure time.
- For exposures under 2s, consider using an ND filter (Cokin P-Series works well except on Shift Panel) to extend exposure time.

TSP Shots (Twin Shot Panorama)

- Ensure correct film format is selected (6×6 for 6×6 TSP, 6×12 for 6×12 TSP).
- Advance film to the first frame.
- Open the left shutter for the first exposure.
- Advance film to the next frame and open the right shutter.
- Ensure identical lighting for both exposures (e.g., no cloud in front of the sun for only one exposure).
- Done!

Tip: TSP panels have a central pinhole for normal centered shots.

7. Filter Use

- Almost all rectangular filters fit (Cokin P-Series works well, except on Shift Panel).
- Position the filter to fully cover the pinhole.
- Secure with the small magnetic filter holder (Figure #10).
- Keep the filter clean – any lint will appear on the image.

8. Special Notes

Changing Settings with Loaded Roll Film

- You can change the front panel, pinhole distance, or film format even with film loaded.
  Procedure:

1. Note the frame number.

2. Rewind film until the large arrow appears.
3. Change the relevant component (panel, frame, etc.).
4. Advance film back to the noted frame and continue shooting 😉.

New for Mania MFZ 6×17 (from 2026): Shutter Transport Lock

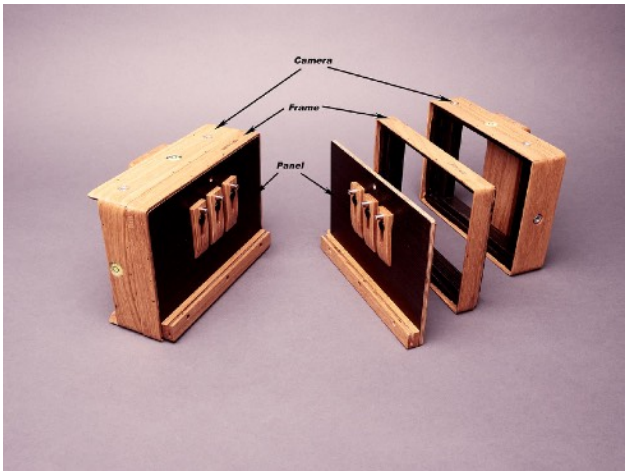
- Release the magnetic transport lock on the top rear of the camera (Figure #11).
- Attach it magnetically to the front panel (Figure #12).
  Exception: Shift Panel and panels used only on the 4×5" camera do not use the transport lock.

Technical Data – Mania MFZ

Component	Material / Weight / Dimensions
Body & Intermediate Rings	Solid Oak
Front Panels	Veneered Plywood
Weight 6×17 (without accessories)	approx. 830g
Weight 4×5 (without accessories)	approx. 320g
Weight Intermediate Ring Inch	approx. 140g
Weight Front Panel	approx. 150g
Dimensions 6×17 (W×H×D)	264×138×63mm
Dimensions 4×5 (W×H×D)	197×137×52mm
Dimensions Intermediate Ring	197×137×30mm

9. Figures:

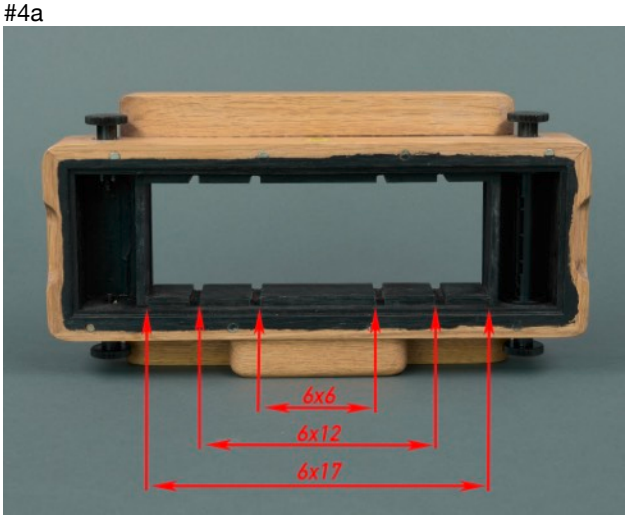
#1



#2

#3

#4a



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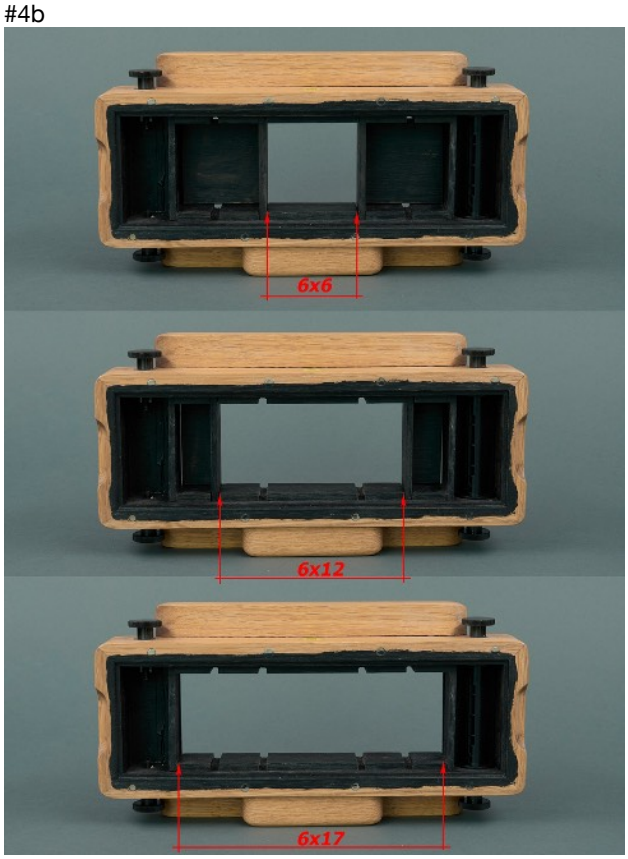
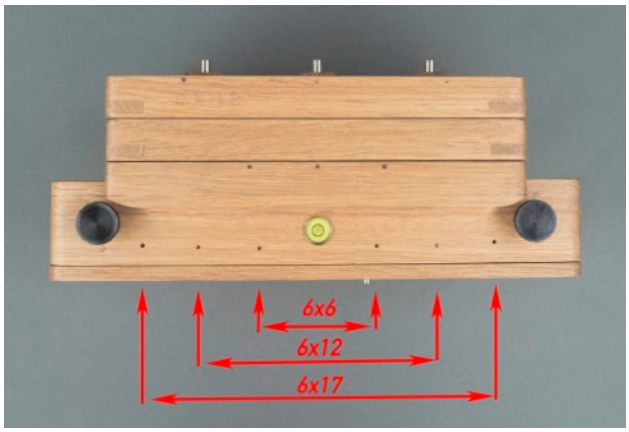


#5

#6

#7



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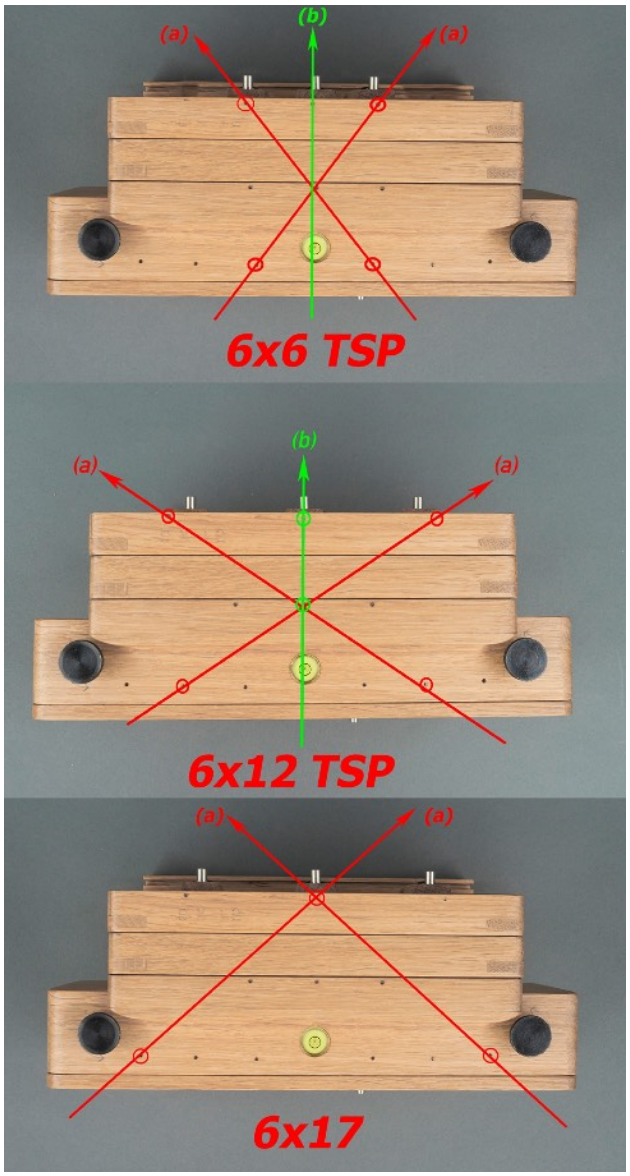

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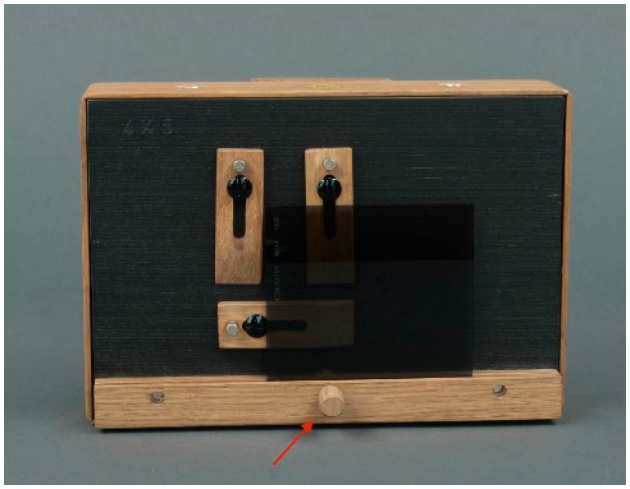
#10



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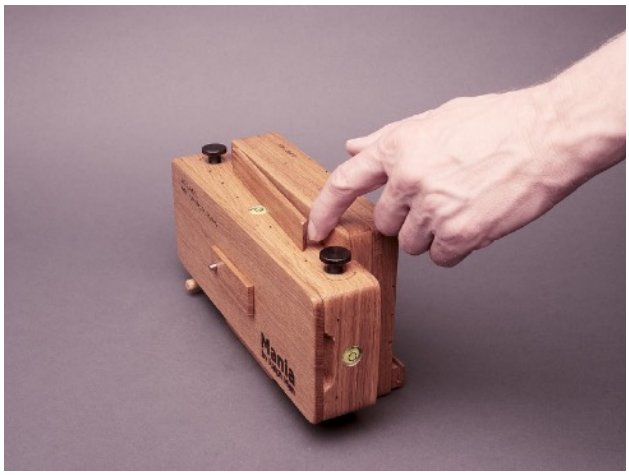

#12

#13

Exposure Table
Measure the light at f/11.
Find the measured exposure time in the table and determine the corresponding value below it.
The values are calculated for many films, such as Ilford FP4 and HP5, with the Schwarzschild effect considered – they are provided as non-binding recommendations.

meassured at aperture f 11 (including Schwarzschild) +:

35mm f 117 (pinhole diam.: 0.3mm):

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s	2s
exposure time:	1/20	1/10	1/5	0,4	0,8	1,6	4s	10s	23s	55s	2m11s	5m15s	12m33s

35mm f 175 (pinhole diam.: 0.2mm):
55mm f 183 (pinhole diam.: 0.3mm):

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s	2s
exposure time:	1/8	1/4	1/2	1s	2,5	6s	15s	38s	1m 34s	4m	9m	22m	54m

55mm f 275 (pinhole diam.: 0.2mm)
75mm f 250 (pinhole diam.: 0.3mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	1/3	0,8s	1,6s	3s	10s	23s	55s	2m 11s	5m10s	12m	30m	1,10h

75mm f 375 (pinhole diam.: 0.2mm)
115mm f 383 (pinhole diam.: 0.3mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	0,8	1,6s	4s	10s	23s	55s	2m25s	5m50s	13m32s	32m27s	1h17m	3h

95mm f 317 (pinhole diam.: 0.3mm)
115mm f 288 (pinhole diam.: 0.4mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	0,5s	1s	2,4s	6s	14s	33s	1m19s	3m9s	7m32s	18m	43m	1h42m

135 mm f 345 (pinhole diam.: 0.4mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	0,65s	1,3s	3s	8s	18s	44s	1m44s	4m10s	10m	24m	55m	2h

meassured at aperture f 11 (excluding Schwarzschild):

35mm f 117 (pinhole diam.: 0.3mm):

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s	2s
exposure time:	1/20	1/10	1/5	0,4	0,8	1,6s	3,2s	6s	12s	24s	48s	1m36s	3m12s

35mm f 175 (pinhole diam.: 0.2mm):
55mm f 183 (pinhole diam.: 0.3mm):

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s	2s
exposure time:	1/8	1/4	1/2	1s	2s	4s	8s	16s	32s	1m4s	2m8s	4m16	5m30s

55mm f 275 (pinhole diam.: 0.2mm)
75mm f 250 (pinhole diam.: 0.3mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	1/3	0,8s	1,6s	3,2s	6,5s	13s	26s	52s	1m44s	3m24	6m48s	13m36s

75mm f 375 (pinhole diam.: 0.2mm)
115mm f 383 (pinhole diam.: 0.3mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	0,8	1,6s	3,2s	6,5s	13s	26s	52s	1m44s	3m24	6m48s	13m36s	27m

95mm f 317 (pinhole diam.: 0.3mm)
115mm f 288 (pinhole diam.: 0.4mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	0,5s	1s	2s	4s	8s	16s	32s	1m4s	2m8s	4m16	5m30s	11m

135 mm f 345 (pinhole diam.: 0.4mm)

measured time f 11	1/2000	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1s
exposure time:	0,65s	1,3s	2,5s	5s	10s	20s	40s	1m20s	2m40s	5m20s	10m40s	21m