User Guide

O-Focus DM Photo/Cine
Pro Kit

Part No. C1242-0001/C1242-0002

www.ocon.com
Caution

- DO NOT hang heavy items over the O-Focus DM handwheel.
- DO NOT attempt to move the camera by pulling on the O-Focus DM handwheel.
- AVOID overtightening the drive gear onto the lens focus drive.
- ALWAYS use genuine OConnor parts and accessories with the O-Focus DM.
- ALWAYS dismantle when not in use and before transporting.
- Never use solvents to clean the O-Focus DM. Wipe clean with a damp cloth.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caution</td>
<td>2</td>
</tr>
<tr>
<td>The O-Focus Dual Mini</td>
<td>4</td>
</tr>
<tr>
<td>Specification</td>
<td></td>
</tr>
<tr>
<td>o-Focus DM Photo Pro Kit</td>
<td>6</td>
</tr>
<tr>
<td>o-Focus DM Cine Pro Kit</td>
<td>7</td>
</tr>
<tr>
<td>In the box</td>
<td></td>
</tr>
<tr>
<td>o-Focus DM Photo Pro Kit</td>
<td>8</td>
</tr>
<tr>
<td>o-Focus DM Cine Pro Kit</td>
<td>9</td>
</tr>
<tr>
<td>Components</td>
<td>10</td>
</tr>
<tr>
<td>Assembly</td>
<td></td>
</tr>
<tr>
<td>assembling the bridge</td>
<td>12</td>
</tr>
<tr>
<td>mounting the handwheel</td>
<td>13</td>
</tr>
<tr>
<td>mounting onto the camera rods</td>
<td>14</td>
</tr>
<tr>
<td>mounting the O-Focus to the lens</td>
<td>15</td>
</tr>
<tr>
<td>setting the focal distances</td>
<td>16</td>
</tr>
<tr>
<td>Options and extras</td>
<td>18</td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
</tr>
<tr>
<td>adjusting the handwheel tension belt</td>
<td>21</td>
</tr>
</tbody>
</table>
The O-Focus DM Cine
Congratulations on the purchase of your new OConnor O-Focus DM!

We want you to get the most from your new O-Focus Dual Mini, and therefore encourage you to read this user guide to familiarize yourself with its many features, some of which may be new to you. It also covers essential information about safety and product care.

Features and benefits of your new O-Focus DM

The O-Focus Dual Mini, the latest addition to the range of genuine accessories from OConnor, offers a host of inspired and productive features:

- the double-sided follow focus is constructed of lightweight, durable black anodized aluminum
- the low-profile design with a direct-drive gear is ideal for large barrel diameter lenses
- optimized focus throw: the O-Focus DM Photo offers a longer, more exacting focus pull for short throw lenses and the O-Focus DM Cine offers a shorter, more exacting focus pull for cine lenses
- multi-functional, modular design: the bridge features a sliding dovetail design and accommodates an LWS rod bridge (included) or, optionally, a heavy-duty bridge for 15/19 mm studio setups, as well as interchangeable gears, mixed or matched handwheels, and a handwheel extension

Special features

The O-Focus DM is the first compact cine-specific unit. The O-Focus DM Photo has been optimized for use with still photo lenses in cine setups.

The highly adaptable O-Focus DM Cine has been designed for precision movement control of higher sustained torque loads. The eccentric design means it can be adjusted for optimal ‘line of sight’ as well as for reach.

The O-Focus DM follow focus integrates seamlessly with standard equipment such as cranks, gears, and whips, thus protecting your investment in equipment by ensuring compatibility also in the future.
O-Focus DM Photo Pro Kit (C1242-0001)

Weight of unit (incl. LWS rod bridge, handwheel) .......................... 1.23 lbs (0.56 kg)
Weight of bridges (excl. handwheel) ................................................. 0.73 lbs (0.33 kg)
Dimensions (excl. handwheel) .......................... 7.2 x 2.2 x 1.5 in. (182 x 57 x 37 mm)
Dimensions of hard-stop handwheel .......................... Ø3.2 x 3.7 in. (Ø82 x 94 mm)
Max. lens diameter (with LW rods) .......................... Ø116 mm

Gear ratio ................................................................. 19:25 (1:0.75)
Positioning of driver gear ........................................................ main bridge interlock (back / front)
Module coupling system ............................................................ backlash-free
Drive gear coupling ............................................................. standard serrated star

Rod system compatibility ............................................. 15 mm LWS, studio 15 mm/19 mm
Gears and friction wheel (see table on page 10 for details)

We reserve the right to alter specifications or change materials where absolutely necessary. All sizes or images shown throughout this publication are approximate and images shown are as accurate as modern reproduction methods will allow. No liability can be accepted for any variation.
O-Focus DM Cine Pro Kit (C1242-0002)

Weight of unit (incl. LWS rod bridge, handwheel) ....................... 1.52 lbs (0.69 kg)
Weight of bridges (excl. handwheel) ........................................ 0.73 lbs (0.33 kg)
Dimensions (excl. handwheel) ............................. 7.2 x 2.2 x 1.5 in. (182 x 57 x 37 mm)
Dimensions of Cine handwheel .................................. Ø4 x 3.2 in. (Ø102 x 81 mm)
Max. lens diameter (with LW rods) ............................ Ø116 mm

Gear ratio ....................................................... 35:19 (1:1.84)
Positioning of driver gear .................................. main bridge interlock (back / front)
Module coupling system .................................. backlash-free
Drive gear coupling .................................... standard serrated star

Rod system compatibility ......................... 15 mm LWS, studio 15 mm/19 mm

Gears and friction wheel (see table on page 10 for details)

Specifications are subject to change without notice.
In the box

O-Focus DM Photo Pro Kit
C1242-0001

Matching OConnor accessories:

- Studio rod bridge
  C1241-1100 (depending on lens)
- Handwheel (for double-sided use)
  C1241-1100 (Cine)
  C1242-1100 (Photo)
- Handwheel extension (70 mm)
  C1241-1500
- Marking disc
  C1242-2421 (single, small)

(for details about driver sizes and lenses see table on page 10)
O-Focus DM Cine Pro Kit
C1242-0002

O-Focus DM Main bridge
C1242-1300

Matching OConnor accessories:

- Studio rod bridge
  C1241-1300 (depending on lens)

- Handwheel (for double-sided use)
  C1241-1100 (Cine)
  C1242-1100 (Photo)

- Handwheel extension (70 mm)
  C1241-1500

- “Glow-in-the-dark” marking disc
  C1241-2117 (single disc, large)
  C1241-1531 (10 pack, large)

CFF-1 Studio Handwheel (full-size offset knob)
C1241-1100

Storm Case (including foam insert)
C1241-1850

Marking Discs (10 pack)
C1241-1530

15 mm LWS rod bridge
C1241-1540

Friction Driver 35
C1242-1001

Gear Z60
C1241-1900

Gear Z35
C1241-1700

Gear Z43
C1241-1600

Gear Z50
C1241-1800

Crank Handle
C1241-1520

Frisk Case (including foam insert)
C1241-1850

In the box

(for details about driver sizes and lenses see table on page 10)
Components

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Gear size</th>
<th>Lens type</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1241-1700</td>
<td>35 tooth 0.8M 10 mm face</td>
<td>Cine</td>
</tr>
<tr>
<td>C1241-1600</td>
<td>43 tooth 0.8M 6 mm face</td>
<td>Cine</td>
</tr>
<tr>
<td>C1241-1800</td>
<td>50 tooth 0.6M 7.5 mm face</td>
<td>Canon ENG focus</td>
</tr>
<tr>
<td>C1241-1900</td>
<td>60 tooth 0.5M 7.5 mm face</td>
<td>Fujinon ENG focus</td>
</tr>
<tr>
<td>C1242-1001</td>
<td>Ø39 mm surface</td>
<td>non-geared photo lenses</td>
</tr>
</tbody>
</table>

O-Focus DM Cine
C1242-0002

index

CINE handwheel

eccentric

main bridge

lock lever

LWS rod bridge

driver gear

bridge interlock (with output gears)

witness marker

marking disc

standard square socket for attachments

lock lever

flip-lock rod clamp screw

rod clamp screw

lock lever

marking disc

bridge interlock (with output gears)
Components

- LWS rod bridge
- main bridge
- lock lever (rod bridge)
- flip-lock
- rod clamp screw
- centric hard-stop handwheel
- lock lever
- driver gear
- bridge interlock (with output gears)
- index screws
- lock lever
- witness marker
- hard-stop slider button
- standard square socket for attachments
- conical marking disc
- O-Focus DM Photo C1242-0001
Assembly – assembling the bridge

1 Assemble the bridges. Slide the LWS rod bridge onto the main bridge. Turn the lock lever clockwise to secure the LWS bridge in position.

The position of the main bridge can be adjusted using the sliding dovetail when mounting the O-Focus DM to the lens (see page 14).

2 Mount the driver gear. Choose a compatible driver gear for your lens (see page 10). Locate the driver on the output gear at the front or back of the interlock bridge as desired. Ensure the serrations fully interlock, then tighten the hollow knurled screw.
The O-Focus DM incorporates a Minimal Backlash Mechanism to guarantee precision focus pull with less play and higher accuracy. Note that the assembly instructions apply to both types of handwheel.

1. Push-fit the handwheel firmly onto the main bridge. **The handwheel must be fully engaged for the backlash-reducing mechanism to be effective.**

2. Turn the lock lever clockwise to secure the handwheel on the main bridge.

3. When mounting the assembled bridges and handwheel onto the camera rods underneath the lens: Turn the knurled screw clockwise to tighten the rod clamp, then flip down to lock the O-Focus DM securely on the rod.

**NOTE:** Lock levers are fitted with a spring. Should a lever obstruct the path of a camera rod, for example, adjust its position: Pull the lever off the shaft as far as possible, turn it a few degrees, then let it retract. Check the clamping is tight.
Mounting the O-Focus DM to the lens requires the assembly to be adjusted in two steps: first assemble and mount the O-Focus on the camera rods, then adjust the main bridge, until the driver gear engages with the lens focus drive.

For more information about the focal length and diameter of a wide range of camera lenses visit OConnor Labs online at the OConnor website (OConnor > Labs > ‘Lens Diameters’).

1 With the 15 mm LWS rod bridge securely mounted underneath the lens, turn the lock lever counter-clockwise to release the main bridge assembly.

2 Mount the O-Focus DM to the lens focus drive. Push the main bridge towards the lens focus drive, until the serrations of the driver gear fully engage. Take care not to overtighten the gear on the lens focus drive.
mounting the O-Focus to the lens

Depending on the setup, the LWS rod bridge can also be replaced with a studio bridge to accommodate heavy-duty 15 mm or 19 mm studio camera rods (see page 10).

For more information about different types of camera rods visit OConnor Labs online at the OConnor website (see OConnor > Labs > ‘Rod Standards Explained’).

3 Turn the lock lever clockwise to secure the main bridge in position. Ensure the bridge is firmly locked to avoid backlash.

4 Turn the handwheel and make sure that the driver gear engages with the lens focus drive adjusting the lens focus smoothly in either direction.
setting the focal distances

Set the lens focal range for the O-Focus DM Photo. Using a suitable pen mark the reference points for the maximum and minimum focal distances. Hard stops prevent lenses with infinite rotation from being turned too far. The hard stops can also be used as hard focus points for run and gun shooting.

1 Using the handwheel find the start focal point, mark this point and set the index. Turn the handwheel and establish the end stop of the focus pull. Mark with a pen, then adjust the index stoppers.

2 Set the focal distances. Loosen the index, move the large witness marker to the end position, and tighten the screw. For the start position set the index slightly beyond the first marker. Finally, move the slider button between the stops, then push it in.
Mount the marking disc. Align the tongue on the handwheel with the cutout on the marking disc, then push the disc onto the handwheel until it audibly ‘clicks’ into place.

Set the initial lens focus and loosen the index to set it to the preferred eye level. Use a pen to mark the focal reference points on the marking disc, until the desired distance is marked out.

If preferred, set the witness mark to another focal reference point. Adjust the index as required.

The O-Focus DM is now set up and ready for use.

**CAUTION:** Always remove the marking disc before cleaning. Do not use solvents on the O-Focus DM. Follow the instructions supplied with the marking pen when cleaning the marking discs.

Set the focal distances for the O-Focus DM Cine. Using a suitable pen mark the lens focal reference points. The focus throw is optimized for cine lenses to provide a shorter, more exacting focus pull.
For larger camera packages the O-Focus DM can also be used with an optional 70 mm handwheel extension (see page 7 for details). The eye level of the eccentric CFF-1 studio handwheel can be adapted for optimal ‘line of sight’ and for reach.

Handwheel extension (70 mm)(C1241-1500)

**Note:** Adjust the handwheel index up or down for your preferred eye level.

The O-Focus DM has been optimized to work with still photography lenses used in cinema applications. A toothless friction driver wheel is included for use with non-geared, rubber focus barrel still lenses.
Mount a flexi-drive to the Cine Follow Focus One to enable the focus to be adjusted quickly and easily. The flexi-drive assembly comprises a handwheel, hand grip and shaft.

1. Connect the flexi-drive assembly together.

2. Connect the end of the flexi-drive to the Cine Follow Focus One handwheel.

3. Hold the hand grip and rotate the flexi-drive handwheel to adjust the focus.

Flexidrive Assembly Kit:

- Handwheel
  C1241-1514
- Shaft Assembly
  C1241-1515
- Hand Grip
  C1241-1516

Always ensure that the flexi-drive is free from grease and dirt, before and after use.
Mount a crank handle to the Cine Follow Focus One to enable the focus to be adjusted with minimum effort.

1. Connect the crank handle to the 12mm square drive of the handwheel.

2. Rotate the crank handle to adjust the focus.
Adjusting the handwheel tension belt (if required).

1 Using a 2mm Allen key, loosen the two screws that secure the tension belt housing.

2 Taking care, push down on the top of the tension belt housing to increase the tension of the belt.

3 While holding the tension belt housing in place, tighten the two screws using a 2mm Allen key.

⚠️ Do not over-tighten screws