

**MINOLTA CORPORATION'S MACRO TWIN FLASH 2400 /
MACRO RING FLASH 1200 WITH MACRO FLASH CONTROLLER**

Specifications

Type	Auto-electronic flash dedicated for Minolta Maxxum 7, 9, si-, xi-, and i-series AF SLR cameras																																																																			
Flash Metering	Direct TTL OTF flash metering																																																																			
Ratio Flash	Macro Twin Flash 2400: Yes (Can be manually selected between the two flashtubes in Manual Flash Control) Macro Ring Flash 1200: No																																																																			
Guide Number (in meters, ISO 100)	Macro Twin Flash 2400: <table border="0"> <thead> <tr> <th><u>Power Level</u></th> <th><u>1 flashtube</u></th> <th><u>2 flashtubes</u></th> <th><u>Wide Angle Adapter*</u></th> <th><u>Diffuser*</u></th> </tr> </thead> <tbody> <tr><td>1/1</td><td>17</td><td>24</td><td>11</td><td>7</td></tr> <tr><td>1/2</td><td>12</td><td>17</td><td>8</td><td>5</td></tr> <tr><td>1/4</td><td>8.5</td><td>12</td><td>5.6</td><td>3.5</td></tr> <tr><td>1/8</td><td>6</td><td>8.5</td><td>4</td><td>2.5</td></tr> <tr><td>1/16</td><td>4.2</td><td>6</td><td>2.8</td><td>1.8</td></tr> <tr><td>1/32</td><td>3</td><td>4.2</td><td>2</td><td>1.3</td></tr> <tr><td>1/64</td><td>2.1</td><td>3</td><td>1.4</td><td>0.9</td></tr> </tbody> </table> <p>(*per flashtube)</p> Macro Ring Flash 1200: <table border="0"> <thead> <tr> <th><u>Power Level</u></th> <th><u>1 flashtube</u></th> <th><u>4 flashtubes</u></th> </tr> </thead> <tbody> <tr><td>1/1</td><td>12</td><td>10</td></tr> <tr><td>1/2</td><td>8.5</td><td>7</td></tr> <tr><td>1/4</td><td>6</td><td>5</td></tr> <tr><td>1/8</td><td>4.2</td><td>3.5</td></tr> <tr><td>1/16</td><td>3</td><td>2.5</td></tr> <tr><td>1/32</td><td>2.1</td><td>1.8</td></tr> <tr><td>1/64</td><td>1.5</td><td>1.3</td></tr> </tbody> </table>				<u>Power Level</u>	<u>1 flashtube</u>	<u>2 flashtubes</u>	<u>Wide Angle Adapter*</u>	<u>Diffuser*</u>	1/1	17	24	11	7	1/2	12	17	8	5	1/4	8.5	12	5.6	3.5	1/8	6	8.5	4	2.5	1/16	4.2	6	2.8	1.8	1/32	3	4.2	2	1.3	1/64	2.1	3	1.4	0.9	<u>Power Level</u>	<u>1 flashtube</u>	<u>4 flashtubes</u>	1/1	12	10	1/2	8.5	7	1/4	6	5	1/8	4.2	3.5	1/16	3	2.5	1/32	2.1	1.8	1/64	1.5	1.3
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Power Level	Selectable from seven levels (1/1, 1/2, 1/4, 1/8, 1/16, 1/32, and 1/64; 1/1, 1/1.4, 1/2, 1/2.8, 1/4, 1/5.6, and 1/8 when 1/2 EV increment is selected with a Custom Function)																																																																			
Modeling Flash	Macro Twin Flash 2400: 40 Hz (2 seconds) Macro Ring Flash 1200: No																																																																			

Test Flash	Macro Twin Flash 2400: Yes Macro Ring Flash 1200: Yes								
Focus Lamps	Macro Twin Flash 2400: No Macro Ring Flash 1200: Yes (on the Ring Flash Unit R-1200)								
Power Source	Four AA-size batteries (alkaline, Ni-MH, or lithium); External power with (optional) AC adapter								
Battery Performance	<table border="0"> <thead> <tr> <th style="text-align: center;"><u>Times</u></th> <th style="text-align: center;"><u>Frequency</u></th> </tr> </thead> <tbody> <tr> <td>Alkaline: approximately 200 – 4000</td> <td>approximately 0.2 – 6 seconds</td> </tr> <tr> <td>Ni-MH: approximately 150 – 3000</td> <td>approximately 0.2 – 5 seconds</td> </tr> <tr> <td>Lithium: approximately 500 – 10000</td> <td>approximately 0.2 – 6 seconds</td> </tr> </tbody> </table> <p><i>*Performance depends on power output and use.</i></p>	<u>Times</u>	<u>Frequency</u>	Alkaline: approximately 200 – 4000	approximately 0.2 – 6 seconds	Ni-MH: approximately 150 – 3000	approximately 0.2 – 5 seconds	Lithium: approximately 500 – 10000	approximately 0.2 – 6 seconds
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Dimensions (W x H x D)	Macro Twin Flash 2400: Twin Flash Units T-2400: 1.7 x 1.6 x 1.5 inches (43 x 41 x 37mm) Macro Ring Flash 1200: Ring Flash Unit R-1200: 3.9 x 4.7 x 0.9 inches (98 x 121 x 22mm) Macro Flash Controller: 2.7 x 4.8 x 3.6 inches (68 x 123 x 91mm)								
Weight	Macro Twin Flash 2400: Twin Flash Units T-2400: 1.06 ounces (30g) Macro Ring Flash 1200: Ring Flash Unit R-1200: 4.2 ounces (120g) Macro Flash Controller: 8.6 ounces (245g) (without batteries)								
Packing List	Macro Twin Flash 2400: Twin Flash Unit T-2400 (x2), Twin Flash Adapter Ring 49mm, Twin Flash Adapter Ring 55mm, Twin Flash Arm (x2), Twin Flash Holder, Twin Flash Wideangle-adapter (x2), Twin Flash Diffuser (x2), Cord Reel for Twin Flash Unit T-2400 (x2), Case For Macro Twin Flash 2400. Macro Ring Flash 1200: Ring Flash Unit R-1200, 1200AF Adapter Ring 49mm, 1200AF Adapter Ring 55mm, Bag for macro ring flash 1200. Macro Flash Controller: Macro Flash Controller MFC-1000, Case for PF3600HS(D).								
Optional Accessories	Macro Twin Flash 2400: Twin Flash Adapter Ring 72mm Macro Ring Flash 1200: Macro Flash Adapter for AF MACRO 200mm (f/4 Apo Tele) External AC Adapter								

*Unless individually stated, the specifications apply to both flashes.
The specifications, packing list, and optional accessories are subject to change without notification.*