

USER INSTRUCTIONS**MG500P****ILFORD MULTIGRADE 500P EXPOSURE PROBE****FOR USE WITH THE ILFORD MULTIGRADE 500 EXPOSING SYSTEM**

The **ILFORD MULTIGRADE 500P** exposure probe is for use with the ILFORD MULTIGRADE 500 exposing system, to provide automatic assessment of exposure time at the grade selected from a spot reading.

1 CALIBRATION

The calibration system is very straightforward, and provides a sound basis for obtaining correct exposure times when using the probe. The probe is supplied with a test negative to help with initial calibration. When you become more familiar with the probe you may wish to carry out the following procedure using a negative that you consider to be more representative of your own work.

a) Using the test negative supplied, make a satisfactory print on ILFORD MULTIGRADE paper using, for example, grade 2. Make a note of the exposure time and grade used. The exposure time and the enlarger settings must not be changed during the remainder of the calibration procedure.

b) Plug the MULTIGRADE 500P exposure probe into the 'probe' socket at the rear of the control unit.

c) Press 'focus' (MULTIGRADE 500CPM control units) or 'auto' (MULTIGRADE 500C control units.)

d) Position the probe photocell on the projected image on the area bounded by the clear ring. Once the probe is positioned, do not move the probe or lean over it while the probe is taking a reading.

e) Press and release the probe switch. The probe provides information to the control unit which, in turn, calculates and displays the optimum exposure time, based on image intensity. The calculation incorporates a correction factor to take into account any background illumination, e.g. safelighting.

f) If the display does not agree with the exposure time noted in operation (a), adjust the probe calibration knob to a lower setting (towards 0) if a shorter exposure time is displayed, or to a higher setting (towards 9) if a longer exposure time is displayed.

g) Repeat operations (e) and (f) until the display agrees with the exposure time noted in operation (a).

Note. In all cases, choose the calibration knob setting that gives the closest match. Never attempt to position the knob between numbers.

h) If calibration cannot be achieved within the range of the knob, carry out the procedure detailed in section 2 below.

2 COARSE ADJUSTMENT

a) Coarse adjustments are made by the adjustment potentiometer. To gain access to the potentiometer, remove the plastic blanking adjacent to the probe switch.

b) Set the calibration knob to position 4.

c) Using a small screwdriver, adjust the potentiometer clockwise if the display is too long, or anticlockwise if the display is too short.

Note. The potentiometer is very sensitive and only small degrees of turn will be required.

d) Repeat the calibration procedure (and coarse adjustment if necessary) until the display matches the exposure time noted in section 1, operation (a).

e) Refit the blanking plug. Further coarse adjustment should not be necessary.

3 OPERATING THE MULTIGRADE 500 SYSTEM USING THE EXPOSURE PROBE.

The following is a summary of the procedure detailed in the MULTIGRADE 500 Operating Manual.

a) With the probe plugged into the control unit 'probe' socket, press 'focus.' Focus and compose the required image. Set the grade.

b) On MULTIGRADE 500C control units only, press 'auto.'

c) Position the probe photocell towards the centre of the projected image in a bright area, i.e. a shadow area on the final print where some detail is retained.

d) Press and release the probe switch. The probe and the operator must remain stationary until the exposure time is displayed and an audible signal is made.

e) Expose a sheet of ILFORD MULTIGRADE paper by pressing 'expose/cancel.'

3.1 PRINT ASSESSMENT

When using the probe, the area chosen to take the spot reading will, on the final print, be just less than maximum density, i.e. a deep shadow area that retains detail. This density will be obtained irrespective of the grade selected.

If the grade selected is not correct for the negative however, the rest of the print will appear too light or too dark.

If the grade is too high, the print will generally be too light. If the grade selected is too low, the print will generally be too dark.