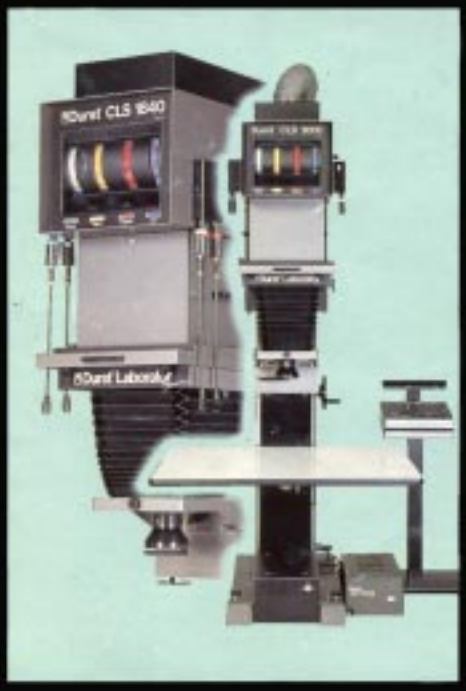
English

Durst
Laborator
1840



Durst

The supremely versatile enlarger

- from smallest films to giant enlargements

Add to the Laborator 1840 a CLS 1840 colour head (with 1000 watt lamp) or the CLS 2000 (with 2000 watt lamp), a roll paper easel and the Durst PCM 1001 - and you truly have the most efficient and most versatile darkroom unit. For with this combination you handle every type of order, from the smallest standard enprint to professional giant enlargements and strip prints. The manual tilt movements of the enlarger head, lens standard and baseboard allow easy correction of converging verticals or deliberate distortion effects.

CLS 1840
Colour head

Applications: From reductions to poster prints, giant enlargements by swinging the enlarger head for horizontal projection, tightly cropped part enlargements, transparency duplication, combination printing in register etc.

Short exposures even at high magnifications with the 1000 watt tungsten-halogen lamp and interchangeable double mixing boxes matched to the film size in use - 25 x 25, 20 x 25, 13 x 18, 10 x 12.5, and 6 x 9 cm (10 x 10, 8 x 10, 5 x 7, 4 x 5 and 2¼ x 3¼ in.), also 24 x 36 mm - for most efficient light use.

Special strip mixing boxes greatly reduce exposure times for strip enlargements by concentrating the light on the film strip area being projected. This can halve the exposure and achieves more even illumination with better colour mixing. Specially suitable for horizontal projection (see technical data).

Even illumination with format-matched mixing boxes.

High filter densities. Yellow, magenta and cyan dichroic filters with settings up to 130 densitometric values plus supplementary 70 Y and 30 M filters cope easily with difficult originals.

Preferred optimum exposure times and apertures at low magnifications with stepless density diaphragm (range 0 to 60, or 2 f-stops).

Easy focusing with white-light lever to swing filters and density diaphragm out of the light path.

CLS 2000
Colour head

Applications: Enlargements, reductions, horizontal projection, transparency duplication, combination printing etc.

High light output. The 2000 watt tungsten-halogen lamp with separate diathermic reflector and the double format-matched mixing boxes yield maximum light output with optimum colour mixing. This ensures very short exposure times - a special boon with horizontal projection for giant enlargements.

The voltage stabiliser compensates voltage fluctuations from + 10% to − 15%.

Optimum colour temperature even with short exposure times. The voltage stabiliser controls a shutter that only opens when the preheated tungsten-halogen lamp has reached its correct colour temperature. After the exposure the shutter automatically closes and the lamp returns to preheated standby mode.

High filter values up to 130 densitometric values with stepless dichroic filter settings. Supplementary 20 M and 45 Y filters are built in for negatives needing extreme correction.

Density diaphragm avoids excessively short exposure times at low magnifications and compensates reciprocity failure. The setting range of 0 to 60 covers 2 f-stops.

Efficient cooling system. Two fans - one for the lamp area including the heat filter and dichroic filters, the other for the film carrier, mixing boxes and diffuser - prevent harmful heating of films even with continuous operation. The fans keep running until the lamphouse has cooled to ambient temperature.

Basic enlarger

Features

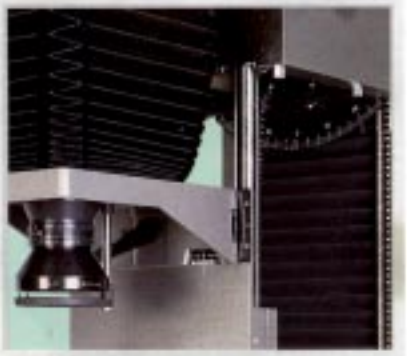
Rigid construction for maximum stability. The solid column design maintains precise alignment of the three principal planes.

Horizontal projection. Its rigid construction makes the Laborator 1840 specially suitable for horizontal projection. For easy movement in such a setup we recommend installing the enlarger on rails.

Full distortion control. The independent tilt facility of the three principal planes (baseboard, lens plane and enlarger head with film plane) corrects converging verticals or provides deliberate distortion. Scales simplify repeat settings.

Motorised enlarger head and lens movement. A central control panel controls these functions. It also stores exposure times and triggers the exposure via the digital timer.

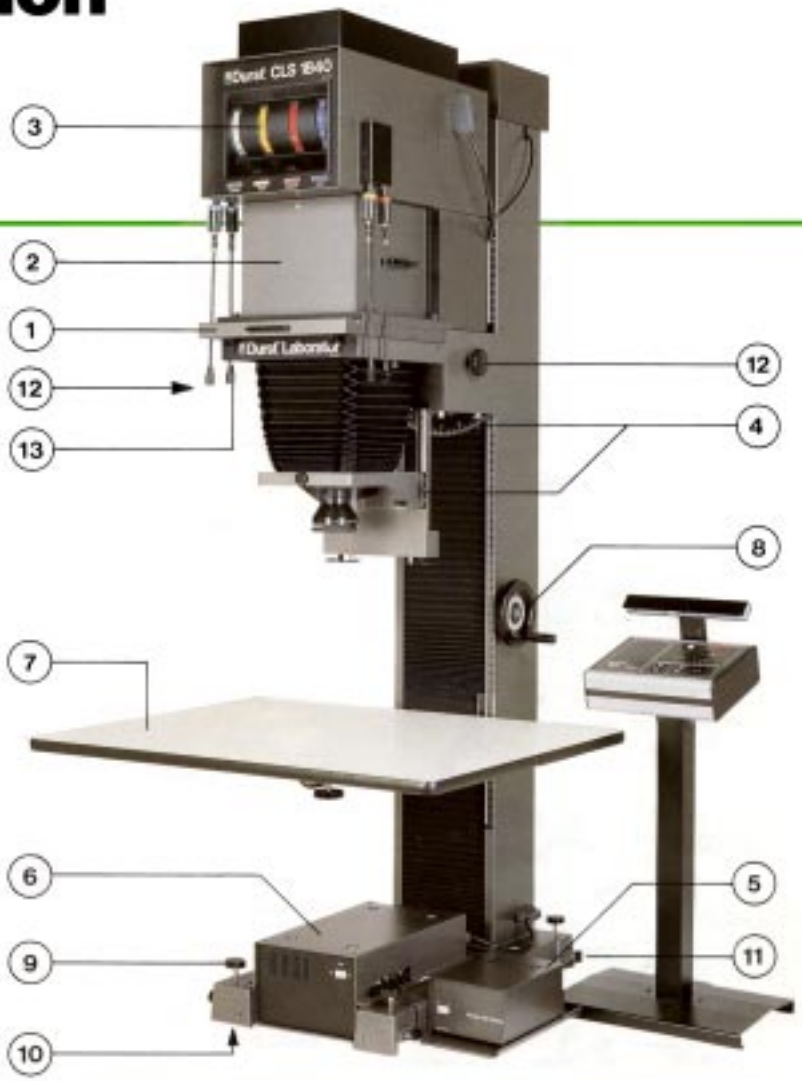
Roll paper easel operation. The baseboard carrying arm is easily removable for using a roll paper easel.



The EST 1000 N or EST 2000 N voltage stabiliser switches the tungsten-halogen lamp to continuous burning when running exposure sequences and only opens and closes the shutter. This greatly increases output. If no exposure takes place for 10 sec., the EST 1000 N / 2000 N automatically switches to pre-glow stand-by mode.

Unit description

① Negative carrier
② Mixing box
③ Illuminated display scales for density, yellow, magenta and cyan
④ Scales for repeat settings
⑤ Voltage stabiliser
⑥ Power supply unit
⑦ Projection baseboard (vertically adjustable, tilts for distortion control)
⑧ Crank for baseboard movement
⑨ Milled levelling screws to level enlarger on uneven floors
⑩ Wheels for easy sideways movement (especially when mounted on T-rails)
⑪ Milled locking screws
⑫ Locking lever and milled knob to swing enlarger head horizontally
⑬ Filter control knobs



Accessories

① **ROLLFILMNEG 1840**
Consists of an adapter with adapter mixing box and BIMANEG negative carrier (rotates through 90°, normally supplied with two glass plates). Particularly suitable for rapid enlargements from films up to 6 × 9 cm, especially with roll paper easels.

BINEMA metal masks for film sizes from 24 × 36 mm to 6 × 9 cm (ROLLFILMNEG 1840 accessories).

② **BIMABOX 35 N, 66 N, 69 N**
Mixing boxes for film sizes from 24 × 36 mm to 6 × 9 cm (ROLLFILMNEG 1840 accessories).

HOMASKSET
Format masks for film sizes from 24 × 36 mm up to 20 × 25 cm with the LARANEG negative carrier (mounted below lower glass, permit use of two negative carrier glasses).

TRINOMASK 35 N, 66 N, 67 N, 69 N, 450 N, 138
Format masks (24 × 36 mm up to 13 × 18 cm) fitted with guide pins on springs. Permit the use of a glass or anti-Newton glass plate in place of the upper format mask for occasions where absolute film flatness is vital.

LARATRINO
Pair of reducing adapters for faster operation with the LARANEG carrier with TRINOMASK format masks.

③ **LARANEG**
Negative carrier equipped with two register pin bars (Durst LORVALO and Kodak Register systems).

④ **NEGATEIL 1800 N**
Special negative carrier for strip exposures with horizontal projection, for film sizes up to 20 × 25 cm.
Lateral knobs can shift the inner film holder out of the optical axis by up to 120 mm to the left or right. That allows attachment of the enlarging paper in the same spot on the easel every time.
Two laterally adjustable masking plates mask down the film to the required strip. The basic NEGATEIL 1800 N includes a register pin bar for the Durst LORVALO system. The Durst MIVALO register system (MIVADAP 205) and the American Kodak system (KODAREG 165 V) are available separately.

⑤ **PCM 1001**
- Serves as colormeter to establish filter settings and exposure times, allowing for reciprocity failure effects.
- Also as Photometer for slide duplication.
- And as VCNA translator.
- Permits spot or full-area readings.
- Automatically compensates for reciprocity failure.

Please ask for the PCM 1001 booklet.

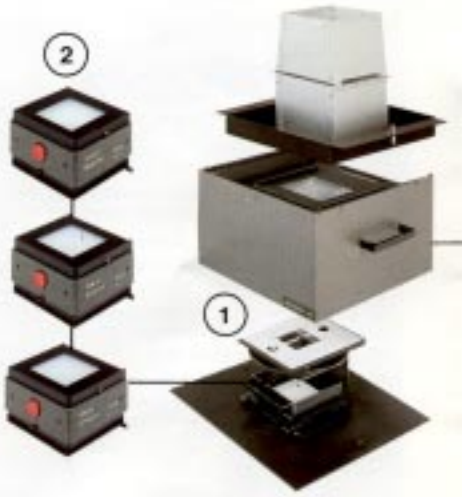
⑥ LARABOX 100 N, 138, 450, 69, 35 for film sizes from 24 × 36 mm to 20 × 25 cm.

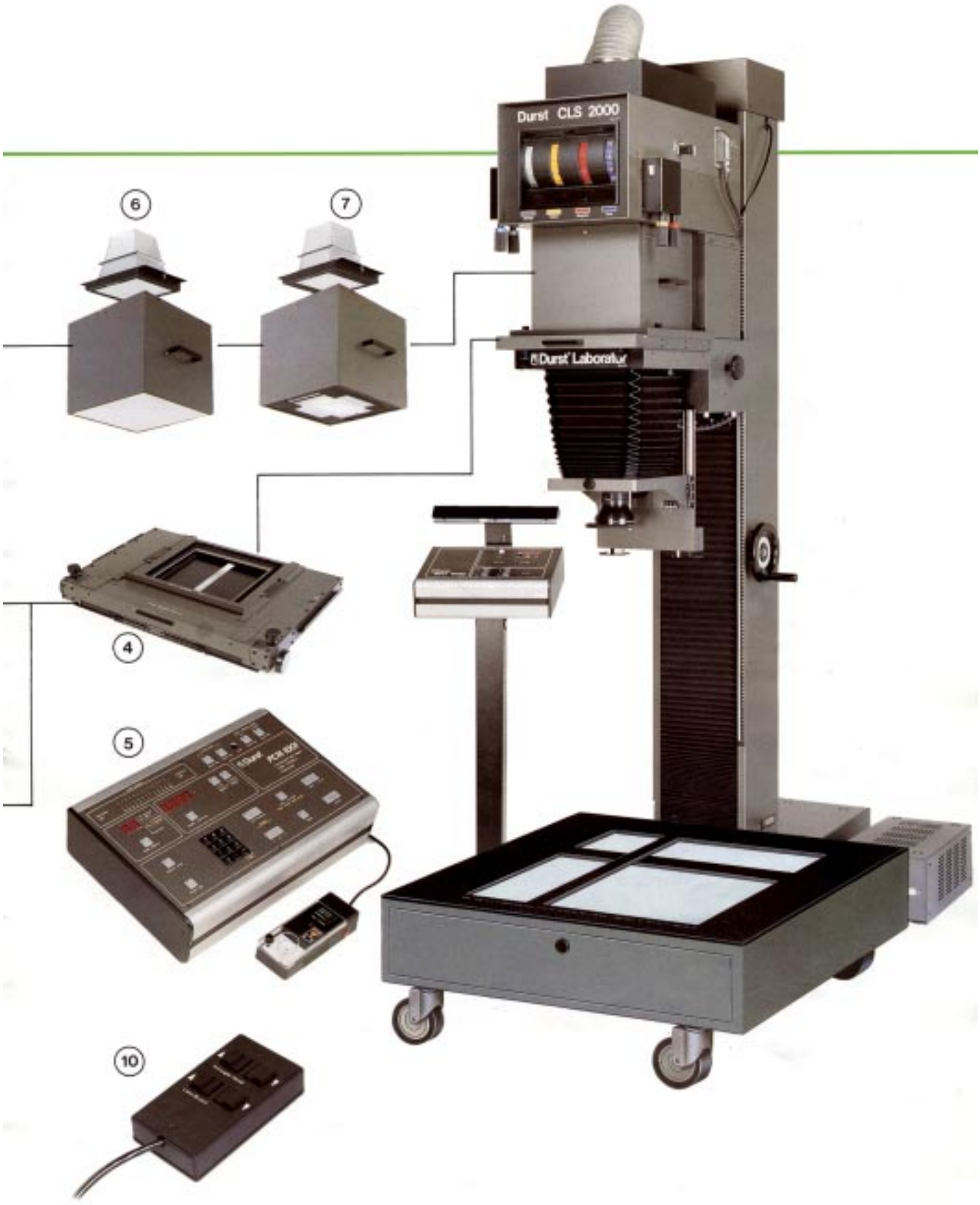
⑦ LARABOX 256, 186, 126 for strip exposures with film sizes from 10 × 12.5 to 20 × 25 cm (4 × 5 to 8 × 10 in.).

⑧ NEGAROLL 205 for rapid operation with aerial films and film rolls up to 240 mm (9½ in.) wide and 60 m or 200 ft long.

⑨ MIVALO micro precision register system for register operations with the standard LARANEG and the NEGATEIL 1800 N negative carriers
- VAPLA lens board for 300 and 360 mm lenses.
- TRIPLA lens turret for three lenses from 100 to 240 mm.
- UNIPLA lens board for lenses from 100 to 240 mm.

⑩ DESKMES 1000 remote control unit for enlarger head and lens plane adjustment.




Durst CLS 2000
Durst Laboratur
6
7
4
5
10

Technical data

Strip mixing boxes:

Mixing box	Max. film width	Max. width of strip to be exposed (approx.)	Suitable for magnifications above
LARABOX 256	20 cm (8 in.)	12 cm (4.7 in.)	10 x lin.
LARABOX 186	13 cm (5 in.)	8 cm (3.1 in.)	15 x lin.
LARABOX 126	10 cm (4 in.)	6 cm (2.3 in.)	25 x lin.

Light output gain with format-matched mixing box, compared with largest mixing box

Film size	LARABOX 100N 25 x 25 cm mixing box	Format-matched mixing box			Notes
		Type	Light output gain (appr. %)	Light output gain (f-stops)*	
24 x 36 mm	100%	LARABOX 35	1.050	3 1/3	
6 x 6 cm (2 1/4 x 2 1/4 in.)	100%	LARABOX 69	510	2 1/3	
6 x 9 cm (2 1/4 x 3 1/4 in.)	100%	LARABOX 69	510	2 1/3	
4 x 5 in. (10 x 12.5 cm)	100%	LARABOX 450	370	2	
		LARABOX 126	735	2 3/4	Strip mixing box
13 x 18 cm (5 x 7 in.)	100%	LARABOX 138	280	1 1/2	
		LARABOX 186	600	2 1/2	Strip mixing box
20 x 25 cm (8 x 10 in.)	100%	LARABOX 205N	124	1/3	
		LARABOX 256	240	1 1/4	Strip mixing box

* Approximate values

Basic enlarger

Overall height with CLS 1840: approx. 281 cm (111 in.)

Overall height with condenser unit: approx. 270 cm (106 in.)

Optical axis/column distance: approx. 49.5 cm (19.5 in.)

Lowest optical axis level with horizontal projection: approx. 130 cm (51 in.)

Floor space requirement: approx. 140 x 140 cm (55 x 55 in.)

Baseboard size: 90 x 110 cm (35 x 43 in.)

Usable vacuum table area: 60 x 70 cm (24 x 28 in.)

Supply voltage: 220/240V, 50-60Hz

Power consumption: approx. 500W

Max. loading of power supply unit: approx. 1500W

Net weight (standard outfit): approx. 130 kg (286 lb)

CLS 1840 colour head

Light source: 120V 1000W tungsten-halogen lamp

AC mains supply:
- stabilised EST 1000 mains transformer
- Nominal voltage 220/240V, 50-60Hz
- Stabilising range 180-260V
- Output voltage of EST 1000: 120V ±1%

Power consumption: 1200 watts

Filters: Dichroic, up to 130 densitometric values

Supplementary filters: approx. 70 Y and 30 M, 18 x 18 cm

Density diaphragm: 0 to 60 (= 2 f-stops)

Size: approx. 65 x 44 x 71 cm (25.6 x 17.3 x 28 in.)

Net weight: approx. 33 kg (72 lb)

CLS 2000 colour head

Light source: 230V 2000W tungsten-halogen lamp

AC mains supply:
- stabilised EST 2000 mains transformer
- Nominal voltage 220/240V, 50-60Hz
- Stabilising range 180-260V
- Output voltage of EST 2000: 228V ±1V

Power consumption: 1200 watts

Filters: Dichroic, up to 130 densitometric values

Supplementary filters: approx. 45 Y and 20 M

Density diaphragm: 0 to 60 (= 2 f-stops)

Size: approx. 60 x 55 x 65 cm (23.6 x 21.6 x 25.6 in.)

Net weight: approx. 18.55 kg (39 lb)

udio Durst P. 0K 81005 (6) 9/93 - Printed by Fotolito Longo AG - Frensart (BZ) - Italy

DURST PRO USA
1600 NE 25th Avenue, Hillsboro
Oregon 97124, USA
Phone: 5038461492, Fax: 5036401878
E-mail: durst-pro-usa@msn.com
www.durst-pro-usa.com