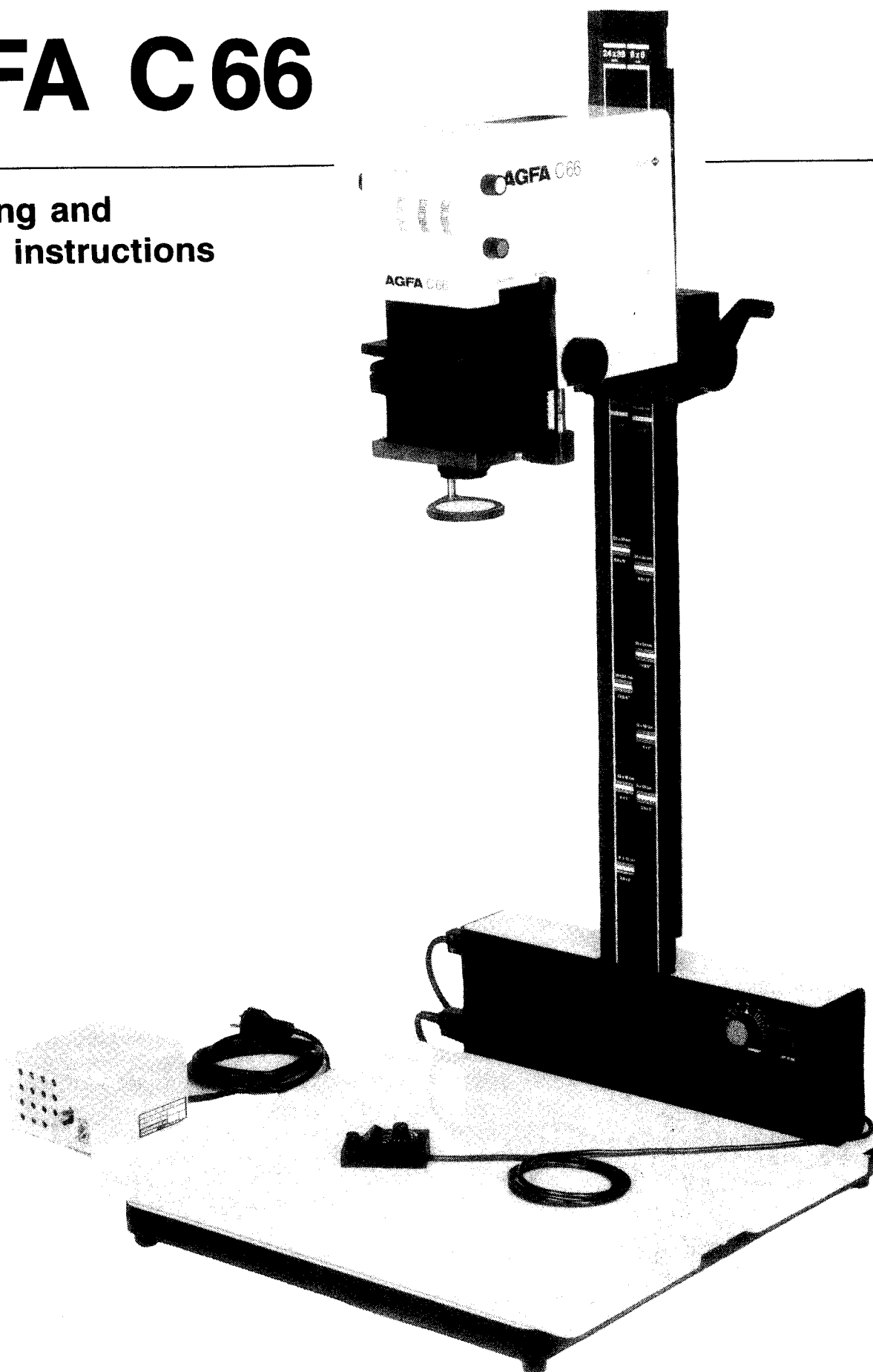

AGFA C 66

**Assembling and
operating instructions**



AGFA C 66

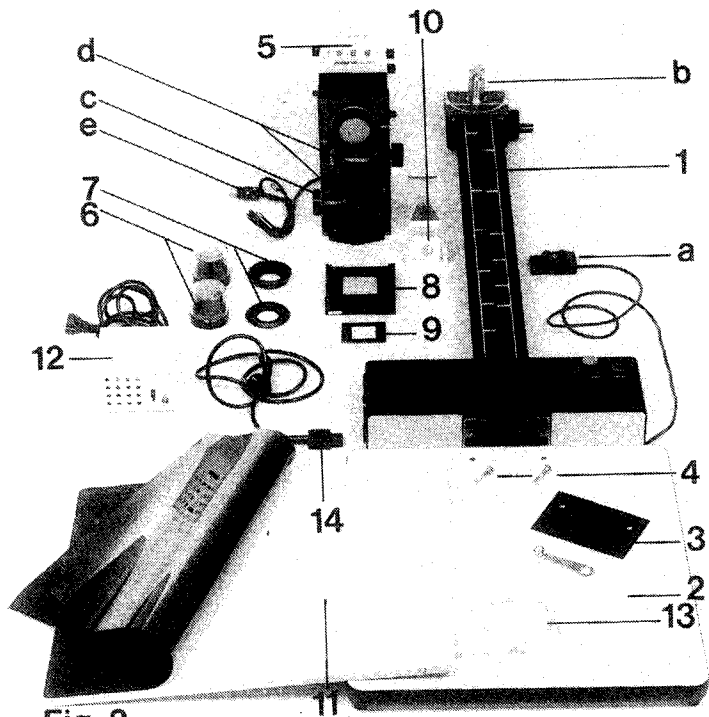


Fig. 2

Legend

- 1 column
- 2 baseboard
- 3 backing plate
- 4 hexagonal bolts
- 5 enlarger head
- 6 lenses
- 7 lens rings
- 8 negative carrier
- 9 glassless mask insert
- 10 lamp with reflector
- 11 vacuum plate
- 12 vacuum pump
- 13 plastic tube
- 14 means cord
- a light measuring probe with exposure knob
- b bearing shaft
- c locking knob
- d milled screws
- e connecting lead

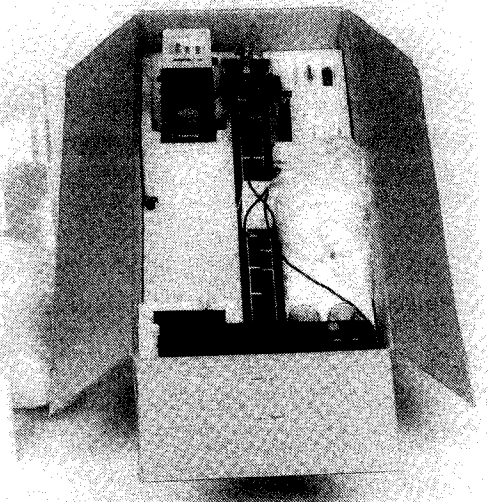


Fig. 1

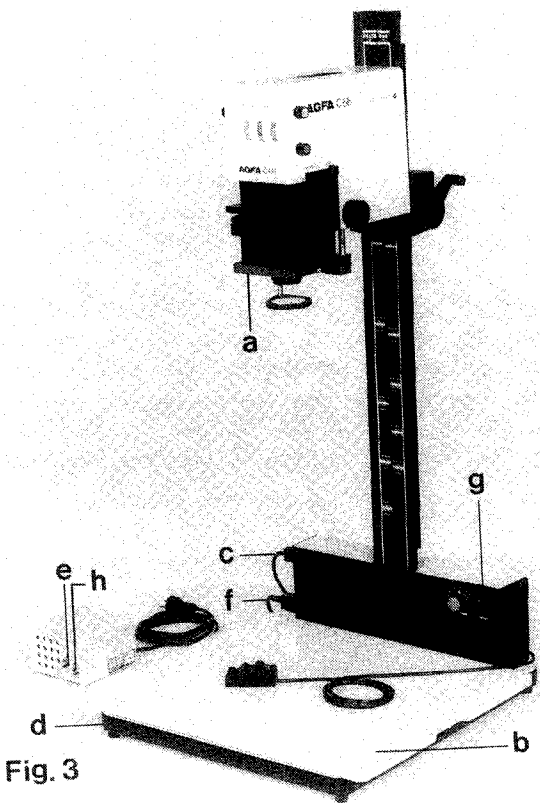


Fig. 3

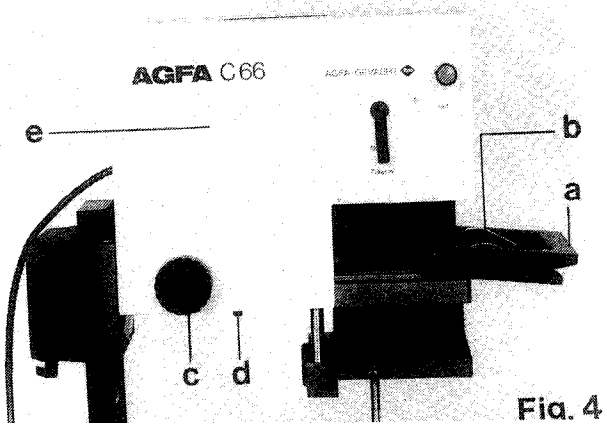
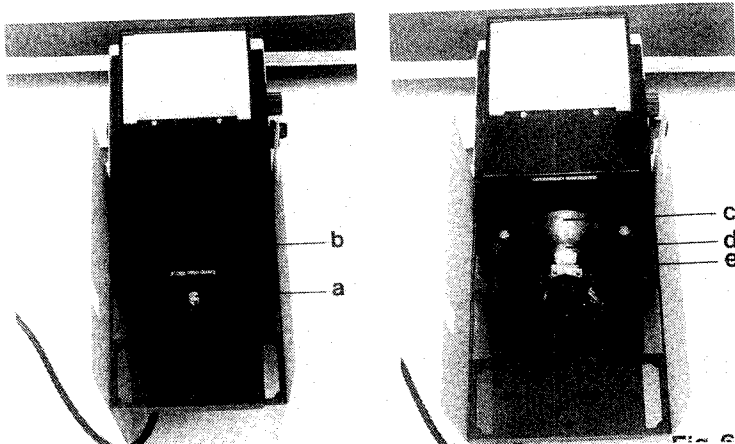


Fig. 4

The AGFA C 66 Colour Enlarger

Unpacking and assembling instructions

1. Unpacking (fig. 1/2)

Open the box.

Remove the loose packing material (fig. 1) from all the components of the enlarger (fig. 2).

2. Assembling

2.1. Complete the column

Put the column (1, fig. 2) down with its front side up.

Place the baseboard (2, fig. 2) at a right angle to the foot of the column.

Put the backing plate (3, fig. 2) in position.

Push the hexagonal bolts (4, fig. 2) into the holes of the baseboard and the foot of the column.

Screw tight with a spanner and set the column up.

Put the enlarger head (5, fig. 2) on the bearing shaft (b, fig. 2) and secure it with the locking knob (c, fig. 2/4).

2.2. Insert the lamp

Loosen the two milled screws (d, fig. 2/4) at the bottom side of the enlarger head.

Pull the hood with the lamphouse (e, fig. 4) upwards.

Unscrew the knurled screw (a, fig. 5) and remove the lamp cover (b, fig. 5). Fit lamp and reflector (c, fig. 6) into the lamphouse using the tension springs (d, fig. 6) to pinch and centre the reflector. Push the lamp socket (e, fig. 6) on the lamp.

Caution: do not touch the inside of the reflector with bare hands!

The enlarger head is reassembled in reverse order.

2.3. Install negative carrier and lens

Push the negative carrier (a, fig. 4) with the tension springs (b, fig. 4) up in the enlarger head.

Screw the lens (6, fig. 2) into the appropriate ring (7, fig. 2).

Insert the completed lens into the lens carrier (a, fig. 3) from below and secure with the clamping screw.

Caution: the 80 mm lens matches the flat ring and the 50 mm lens matches the deepened one.

2.4. Mount the vacuum plate and pump

Place the vacuum plate (b, fig. 3) on

the baseboard (d, fig. 3), air exhaust connection at the front right-hand side.

Put the vacuum pump next to the enlarger.

Connect the PVC tube (13, fig. 2) to the air exhaust of the vacuum plate and to the nipple (e, fig. 3) of the pump.

3. Putting into operation

3.1. Electrical connection

Plug the connecting lead (e, fig. 2 / c, fig. 3) into the upper socket of the circuitry housing.

Connect the means lead: one plug (f, fig. 3) goes into the lower socket of the circuitry housing, the other into the wall socket.

3.2. Switch on

Press the "on/off" button (g, fig. 3) to switch on the enlarger bulb.

Put the vacuum pump into operation by means of the switch (h, fig. 3).

The AGFA C 66 enlarger is now ready for operation.

Instructions for use

The AGFA C 66 in conjunction with COPYCOLOR

Apart from the AGFA C 66 enlarger, the following components are needed to make COPYCOLOR enlargements.

1. COPYCOLOR negative and positive

CCN: COPYCOLOR Negative Film Panchromatic negative emulsion coated on a 0.1 mm polyester base. The exposed CCN film can be transferred onto three different positives:

CCP: COPYCOLOR Positive Paper Non-sensitized, recto-verso coated, semi-matt RC paper (100 g/sq.m.).

CCG: COPYCOLOR Positive Paper Glossy Non-sensitized, recto-verso coated RC paper (180 g/sq.m.) ; one surface is semi-matt, the other one is glossy.

CCF: COPYCOLOR Positive Film Non-sensitized, recto-verso coated polyester film (0.1 mm gauge).

2. Chemistry

CC 292 B: COPYCOLOR Activator Highly alkaline activator for processing CCN with CCP, CCG, CCF.

3. Additional processing requirements

COPYCOLOR Safelight

A light source with a specific spectrum for processing COPYCOLOR under very favourable darkroom conditions.

CC 1, CC 2, CC 3 COPYCOLOR Contrast Control Films

This set of films enables you to vary the final contrast of the enlargements according to your personal taste and pleasure.

COPYPROOF CP 31, CP 38, CP 53, CP 53 N, CP 42

Diffusion Transfer Processors

These units are also used for processing COPYCOLOR.

COPYPROOF WD 37/WD 66

Washer-Dryer

Although COPYCOLOR may be rinsed in a tray and dried in the conventional manner (to the air, with a hair-dryer, etc.), the WD 37/WD 66 offers the big advantage of simple handling and considerable reduction of the total processing time.

Calibrating the AGFA C 66 Colour Enlarger

The following working-method concerns the use of framed 35 mm (24 x 36 mm) colour slides.

1. Making the test copy

1. Screw the 50 mm lens into the appropriate lens ring. Insert the completed lens into the lens carrier of the enlarger from below and secure it with the clamping screw.
2. Set the mixing box lever to "24 x 36 mm".
3. Place the framed slide in the negative carrier with the emulsion side up.
4. Lift or lower the enlarger head to the required magnification.
5. Open the aperture completely. Set the filter handle to "FILTER OUT" and focus on the vacuum plate, preferably with a sheet of white paper on it. This ensures optimum brightness of the projected image for easy focusing.
6. Set the filter handle back to "IN" and the diaphragm to f/5.6.
7. Stick two paper strips at a right angle to each other on the vacuum plate for correct positioning of the negative material.
8. Place a sheet of CCN film with its smooth side up against the paper strips.
9. Place a CC 3 Contrast Control Film on top of the CCN film (emulsion side down). For correct positioning make sure that the edge coding appears in mirror writing. Cover negative and Contrast Control Film with the transparent protective filmsheet.
10. Dial the filter values as indicated on the CCN packing.
11. Switch on the vacuum and wipe the protective sheet towards the edges with a non-scratching object to ensure uniform vacuum.
12. Expose the CCN film in 4 or 5 strips, increasing each time the exposure by the same value.

Example: Enlarge a 24 x 36 mm slide to A4 (21 x 29.7 cm). At f/5.6 the correct exposure is approximately 50 exposure units. The following exposure series can be compiled:

Strip	1	2	3	4	5
Exposure units	65	55	45	35	25

13. After exposure switch off the vacuum, remove the protective sheet and place the emulsion side of the exposed CCN film in contact with a receiver.

14. Put both negative and positive through the processor, allow the image to diffuse for 1 minute (2 minutes for copies on film), peel the negative from the positive, rinse and dry same.

2. Assessing the test copy

Assess fully processed copies only, i.e. rinsed and completely dry ones.

Determining the correct exposure

The test copy shows 5 strips that darken stepwise. Strip 1 is the brightest one: it has received the longest exposure; strip 5 is the darkest one: it has received the shortest exposure.

The correct image density is found somewhere between these two extremes.

The density of the three strips in between will enable us to determine with sufficient accuracy the exposure corresponding to the correct image density.

Do not forget:

- **the longer the exposure, the brighter the image.**
- **the shorter the exposure, the darker the image.**

Determining the correct colour balance

Usually the colour balance of the test copy made with the basic filtering mentioned on the packing (see also sub 1, 10) has still to be corrected. The copy shows a so-called colour cast which can be removed by modifying the basic filtering accordingly. Visual assessment of the nature and the density of such a colour cast requires some practical experience.

Here follow a few rules of thumb to help you determine the final filter correction.

Colour cast of the test copy

yellow
magenta
cyan
blue
green
red

Filter value(s) to be lowered

yellow
magenta
cyan
magenta **and** cyan
yellow **and** cyan
yellow **and** magenta

Filter value(s) to be increased

magenta **and** cyan
yellow **and** cyan
yellow **and** magenta
yellow
magenta
cyan

Note

1. An increase of one filter value or a reduction of the other 2 filter values to the same extent and vice versa affects the colour balance in exactly the same way.

2. Increasing or reducing the magenta and/or the cyan filtering also affects the exposure time. See the brochure "COPYCOLOR-Instructions for use".

Now dial the new filter values and the matching exposure time and make a full-size test copy. In case exposure and colour balance are still incorrect, go on making test copies with modified exposure and/or basic filtering until a well balanced and correctly exposed print is obtained.

3. Calibrating the light measuring probe

Important! The exposure conditions (aperture, exposure time, filtering and magnification) that yielded the optimum print must under no circumstances be modified when calibrating the measuring cell. Neither must the slide be removed from the negative carrier.

1. Switch off all lights, even the safelight.
2. Switch on the enlarger and place the measuring cell in the centre of the projection on the baseboard.
3. Swing the diffuser into the light beam.
4. Turn the sensitivity control of the measuring cell until the 2 red indicator lamps next to the exposure time control light up **simultaneously**. The light measuring probe is now properly calibrated. It is to be calibrated again when switching to a negative emulsion with different basic filter correction.

4. Using the measuring probe for production runs

1. Place the slide in the negative carrier.
2. Lift the enlarger head up to the required projection distance.
3. Select the aperture (e.g. f/5.6), switch on the enlarger, place the diffuser in the beam of light and place the measuring cell in the centre of the projection on the baseboard.

4. Turn the exposure control knob until both indicator lamps light up simultaneously. The correct exposure is now set.

5. Expose the sheet of CCN.

5. Switching from 24 x 36 mm to 6 x 6 cm (2 1/4 x 2 1/4 in.)

1. Replace the 50 mm lens by the

80 mm lens (mounted on the appropriate lens ring).

2. Set the mixing box lever to "6 x 6 cm".
3. Replace the glassless 24 x 36 mm slide mask by two negative carrier glasses.
4. Place the unframed slide into the negative carrier, emulsion side up.
5. Exposure is determined in the same way as with 24 x 36 mm slides.

COPYCOLOR processing in conjunction with the AGFA C 66 Enlarger

Step	1. Material 2. Chemistry	Equipment	Time	Darkroom Illumination	Notes															
Exposure	1. CCN	AGFA C 66 + vacuum plate + CC 3	—	bright yellow	When transferring onto CCF the exposure time must be reduced by approximately 1/3 as compared to transfer onto CCP or CCG.															
Development	1. CCN + CCP + CCG + CCF 2. CC 292 B	COPYPROOF processors: CP 31/CP 38/CP 42 CP 53/CP 53 N	—	bright yellow	Exhaustion of CC 292 B: approximately 25 sets A4/litre.															
Image transfer	1. CCN + CCP + CCG + CCF 2. —	preferably under a flat plate (e.g. glass)	CCN/CCP / CCG: 1 min. CCN/CCF: 2 min.	bright yellow/ white	White light may be switched on after approximately 15 seconds. Transfer time depends on the ambient temperature: <table border="1"> <thead> <tr> <th>°C/°F</th> <th>CCN/CCP/CCG</th> <th>CCN/CCF</th> </tr> </thead> <tbody> <tr> <td>18/64</td> <td>90 sec.</td> <td>3 min.</td> </tr> <tr> <td>20/68</td> <td>1 min.</td> <td>2 min.</td> </tr> <tr> <td>25/77</td> <td>50 sec.</td> <td>100 sec.</td> </tr> <tr> <td>30/86</td> <td>40 sec.</td> <td>80 sec.</td> </tr> </tbody> </table>	°C/°F	CCN/CCP/CCG	CCN/CCF	18/64	90 sec.	3 min.	20/68	1 min.	2 min.	25/77	50 sec.	100 sec.	30/86	40 sec.	80 sec.
°C/°F	CCN/CCP/CCG	CCN/CCF																		
18/64	90 sec.	3 min.																		
20/68	1 min.	2 min.																		
25/77	50 sec.	100 sec.																		
30/86	40 sec.	80 sec.																		
Peel apart	1. CCN > < CCP > < CCG > < CCF 2. —	manual	—	white																
Washing/drying	1. CCP/CCG/CCF 2. tap water	manual, preferably with WD 37/WD 66	—	white	Washing is absolutely necessary, but can be kept short (approximately 15 seconds).															

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Please fold out the front flap when
reading the user instructions.
