



Owner's Manual

BLACKFLASH

Flat Panel Infrared Flash Dryer

(Original Instructions)



IMPORTANT INSTRUCTIONS

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

This manual covers assembly, operation and troubleshooting.

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WARNINGS

The operator should familiarize themselves with this manual and all the **WARNINGS** before installing or working on this heater to avoid potentially hazardous conditions, severe property damage, personal injury or death.

1. BBC Industries is interested in the safe operations of this equipment. All wiring to this equipment must be connected to the source in strict accordance with all local codes having jurisdiction.
2. A dedicated electrical (earth) ground is required for proper operation of the equipment.
3. This equipment is meant for the drying/curing of non-flammable Plastisol inks on textiles or the like. Use for any other purpose may cause fire, electric shock, or injury to persons.
4. This heater is for indoor, non-residential use.
5. Install unit in a location with adequate emergency exits.
6. The dryer has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
7. Use the dryer in a well-ventilated space. Refer to the Safety Data Sheet (SDS) for any inks or dyes that you are curing.
8. The area around this equipment should be designated as a work zone with only authorized personnel allowed in the work zone.
9. Keep the work zone clean and free of debris. A perimeter of at least 18 inches (.5 m) around the equipment is recommended.
10. Do Not use extension cords to power this equipment.
11. This equipment is hot when in use. To avoid burns, do not touch hot surfaces. Do not set objects on the unit.
12. Puncture of the heating element face may result in a shock hazard. Do not operate if heater face or power cord is damaged.
13. Do not operate the heater after it malfunctions. Disconnect power at service panel and have the dryer inspected by a qualified technician before reusing.
14. To disconnect the heater, turn off power and unplug the device.
15. When energizing the unit, be sure heater face is not within 3 ft. (1 m) of any combustible materials.
16. Do not leave the unit unintended while in use.
17. These units do not produce noise exceeding 70 dB(A).
18. Handle unit in a safe manner.

Model List and Electrical Information:

MODEL NO.	ELMENT SIZE	VOLTS	WATTS	AMPS	PLUG TYPE
BF1-1600S	16" x 16"	120	1552	12.9	NEMA 5-15P
BF1-1800S	16" x 16"	240	1853	7.7	NEMA 6-20P
BF1-1800HC	16" x 16"	240	1853	7.7	NEMA 6-20P
BF1-1800S-CE	16" x 16"	230	1701	7.4	CEE 7/7
BF1-1800HC-CE	16" x 16"	230	1701	7.4	CEE 7/7
BF2-1605S-J	18" x 18"	100	1585	15.9	NEMA 5-15P
BF2-2000S	18" x 18"	120	1915	16.0	NEMA 5-20P
BF2-2200S*	18" x 18"	120	2283	19.0	NEMA 6-20P
BF2-2200HC*	18" x 18"	120	2283	19.0	NEMA 6-20P
BF2-2600S	18" x 18"	240	2708	11.3	NEMA 6-20P
BF2-2600S-CE	18" x 18"	230	2487	10.8	CEE 7/7
BF2-2800S-J	18" x 18"	200	2778	13.9	NEMA 6-20P
BF2-3400S	18" x 18"	240	3383	14.1	NEMA 6-20P
BF2-3400HC	18" x 18"	240	3383	14.1	NEMA 6-20P
BF2-3400S-CE	18" x 18"	230	3107	13.5	CEE 7/7
BF2-3400HC-CE	18" x 18"	230	3107	13.5	CEE 7/7
BF3-3001S	18" x 24"	240	3233	13.5	NEMA 6-20P
BF3-3001HC	18" x 24"	240	3233	13.5	NEMA 6-20P
BF3-3001S-CE	18" x 24"	230	2969	12.9	CEE 7/7
BF3-3001HC-CE	18" x 24"	230	2969	12.9	CEE 7/7
BF3-3600S	18" x 24"	208	3251	15.6	NEMA 6-20P
BF3-3765S-J	18" x 24"	200	3765	18.9	NEMA 6-20P
BF3-4500S*	18" x 24"	240	4424	18.5	NEMA 6-20P
BF3-4500HC*	18" x 24"	240	4424	18.5	NEMA 6-20P
BF3-4500HC-CE	18" x 24"	230	4063	17.7	IEC 60309 (2P + E)
BF3-4500S-CE	18" x 24"	230	4063	17.7	IEC 60309 (2P + E)
BF4-4000S	24" x 24"	240	3825	15.9	NEMA 6-20P
BF4-4000S-CE	24" x 24"	230	3513	15.3	CEE 7/7
BF4-4000S-J	24" x 24"	200	3953	19.8	NEMA L6-30P
BF4-5000S	24" x 24"	208	4939	23.8	NEMA L6-30P
BF4-5200S	24" x 24"	240	4948	20.6	NEMA L6-30P
BF4-5200S-CE	24" x 24"	230	4544	19.8	IEC 60309 (2P + E)
BF5-5500S	28" x 28"	240	5712	23.8	NEMA L6-30P
BF5-5500S-CE	28" x 28"	230	5246	22.8	IEC 60309 (2P + E)

*Unit must be connected to a Single Receptacle on an Individual Branch Circuit. Do not connect this heater to circuit supplying multiple receptacles.

DO NOT MODIFY THE CORD OR PLUG. This may compromise the safety of the unit and will void the warranty.

Assembly instructions of stand and heater head are contained within the separately packaged stand.

- BF12-172 Standard Duty Stand for use with BF1 and BF2 models.
- BF12-174 Heavy Duty Stand for use with BF3, BF4, and BF5 models.

OPERATION:

The intended use of the Black Flash is to *flash cure* inks on garments. Fully curing inks is also possible but not recommended. BBC Industries offers a full line of conveyor dryers for fully curing inks on garments.

After assembly, plug the unit in to a proper outlet with the proper circuit protection. Position the unit so that nothing is within 3 feet (1 m) under the heater surface. Turn the switch to the ON position and allow 5-10 minutes for the unit to heat up. The indicator light will illuminate when the heater is on. For units with a built-in heat control, the heat output of the unit can be adjusted by adjusting the dial position. Factors including the ink types and the substrate material will determine your most effective setting. For units without the built-in heat control, adjusting the height of the heater can have a similar effect. It is recommended that two people adjust the height of the heater. DO NOT touch hot surfaces while attempting to adjust the height. In-line heat controls are also available from BBC Industries. There are heat control units available for all models. For *flash curing* of plastisol inks, heat inks to about 180-200°F (82-105°C), or per the ink manufacturer's recommendations.

After usage is complete, switch off the unit and position the heater so that nothing is within at least 3 feet (1 m) under the heater face until the heater has cooled (10-15 minutes).

DO NOT LEAVE UNIT UNATTENDED WHILE HEATER IS HOT.

Suggested Initial Settings:

	Distance Above Printing Surface	Heat Control Setting*	Exposure Time
Plastisol Flash	2 – 3 in. (5 – 7.5 cm)	100%	5 – 10 s
Nylon Preheat	2 – 3 in. (5 – 7.5 cm)	30 – 40%	5 – 10 s
Nylon Flash	2 – 3 in. (5 – 7.5 cm)	100%	5 – 10 s
Plastisol Cure	2 – 3 in. (5 – 7.5 cm)	100%	30 – 40 s
Nylon Cure	2 – 3 in. (5 – 7.5 cm)	60 – 100%	15 – 20 s

*Heat Control Settings are only available for models with built in Heat Control, or for users who are utilizing the in-line Heat Control.

The settings in the chart above are suggested initial settings. There are many factors that influence the response of different inks, including Wattage of the heater, ambient conditions during production, inks being used, etc. Your settings may need adjustments.

Troubleshooting:

If the unit is not operating properly, first turn off the heater with the switch, then unplug the unit from its electrical outlet.

Contact BBC Technical Services:

800-654-4205

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