This quick start guide is intended to provide a quick overview of your FLAMEBOY’s key features and to offer basic instructions for getting started. For detailed information, please refer to the operating instructions (OI) that can be found at www.integra-biosciences.com in different languages.

### Intended use

This is a general-purpose laboratory instrument. Any use of this instrument in a medical or IVD setting is the sole responsibility of the user. FLAMEBOY is a portable, hand-held and automatic laboratory flame burner used for surface sterilization. It provides piezo-electric ignition at the push of a button.

### Safety information

Regardless of the listed safety notes, all locally applicable regulations must be observed. 
1) FLAMEBOY may only be used by properly trained personnel under constant supervision in a manner specified by INTEGRA Biosciences.
2) Do not point the FLAMEBOY in the direction of persons or inflammable products. There is the risk of burns from the flame and the still hot burner tube.
3) Do not use the FLAMEBOY near flammable material or in explosive areas. Work only in well ventilated areas.
4) Use only approved and tested safety gas tubing with threaded or hose connectors.
5) Firmly tighten all gas connections and verify gas tightness, e. g. with soap water.
6) Be sure to close off the gas supply before: Transport of the device, changing the nozzle, the adapter or the gas cartridge, longer breaks, cleaning work.
7) Servicing work and repairs may only be performed by INTEGRA Biosciences or an authorized after-sales service member.

### Overview FLAMEBOY

- a. Air knob, to adjust the flame temperature
- b. Brass screw, for replacing the nozzle
- c. Gas knob, to adjust the flame size
- d. Adapter latch
- e. Threaded adapter for gas hose
- f. Threaded connector for gas tubing
- g. Handle
- h. Trigger
- i. Burner tube
Fitting the nozzle for the gas in use

The P80 nozzle for butane/propane gas is fitted ex-factory. If necessary, replace the nozzle.

<table>
<thead>
<tr>
<th>Type of gas</th>
<th>Nominal and maximal gas input pressure</th>
<th>Inscription nozzle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural (&gt;85 % methane) gas</td>
<td>20 mbar</td>
<td>N110</td>
</tr>
<tr>
<td>Butane/propane gas</td>
<td>50 mbar</td>
<td>P80</td>
</tr>
<tr>
<td>Town (methane, others) gas</td>
<td>8 mbar</td>
<td>M250</td>
</tr>
</tbody>
</table>

Turn the gas flow control valve to have access to the brass screw (b). Remove the screw, turn over the device and allow the nozzle to drop out. Insert a new nozzle and retighten the brass screw.

**FLAMEBOY may only be operated with the nozzle that corresponds to the gas type in use. Inspect the O-ring in the brass screw for damage and, if necessary, replace it.**

Connection of an adapter

*When replacing the adapters, always close off the gas supply and remove the gas cartridge.*

- Insert the appropriate adapter in the opening down on the handle (g). Make sure it audibly clicks into position.
- To remove the adapter, use a pointed tool to press the turquoise adapter latch (d) inward and pull out the adapter downwards.

Connecting a gas cartridge

*The P80 nozzle and the gas cartridge adapter must be installed. Gas cartridges may only be used at 15–35 °C. Only replace a gas cartridge, if the adapter is connected to the device and closed.*

**CV360 cartridge adapter:**
- Hold the brass knurled wheel of the gas cartridge adapter and close the valve by unscrewing the black cap clockwise.
- Press the gas cartridge into the cap until its audibly clicks into position.
- Hold the brass knurled wheel and open the valve by screwing the black cap all the way in.

**EXPRESS 444 cartridge adapter:**
- Hold the brass knurled wheel and connect the gas cartridge by screwing it clockwise into the adapter.

Connecting a tubing

- Screw the threaded connector of the gas tubing onto the adapter and tighten it with a 17 mm fork wrench.
- Or:
- Connect the end of the gas hose to the adapter and fix it with a tubing clamp.
Operation

Turn the gas knob (c) counterclockwise to the left. The FLAMEBOY is ignited by slowly pulling the trigger (h). The flame burns as long as the trigger is pulled.

Rotating the gas knob (c) clockwise reduces the gas supply and counterclockwise increases it.

Moving the air knob (a) to the left reduces air supply, moving it to the right increases it.

Maintenance

⚠️ Allow the burner tube to cool off before cleaning the device. Disconnected the device form the gas supply. Allow the device to dry before operating it again.

- Clean the FLAMEBOY with a cloth moistened with soapy water or with a 70 % ethanol solution.
- The stainless steel burner tube (i) can be disinfected with commercially available disinfection agents.
- If the FLAMEBOY has been contaminated, disinfect the housing with a lint-free cloth, lightly soaked with a disinfectant and wipe dry directly after decontamination.

Equipment Disposal

FLAMEBOY must not be disposed of with unsorted municipal waste.
Dispose of FLAMEBOY in accordance with the regulations in your area governing disposal of devices.

Manufacturer

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INTEGRA Declaration of conformity

INTEGRA Biosciences AG – 7205 Zizers, Switzerland

declares on its own responsibility that the devices

<table>
<thead>
<tr>
<th>Description</th>
<th>Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMEBOY</td>
<td>145000, 145003</td>
</tr>
</tbody>
</table>

comply with:

EU Regulations

Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) 1907/2006

Zizers, January 23, 2020

Urs Hartmann
CEO

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