

# F2 Full Face Mask

# **User Manual**

# **Table of Contents**

F2 Full Face Mask	1
Intended Use	1
Before Using the Mask	2
Components of the F2 Full Face Mask	4
Getting the Right Cushion Size	5
Fitting the Mask	6
Disassembling the Mask	7
Cleaning the Mask at Home	8
Reprocessing the Mask between Patients	9
Reassembling the Mask	9
Troubleshooting	10
Technical Specifications	11
Storage	12
Disposal	12
Symbols	13
Limited Warranty	14

#### F2 Full Face Mask

Thank you for choosing BMC's F2 Full Face Mask (**BMC-FM2**). The mask is comfortable, flexible and quiet. It is designed to minimize contact with your face, thus ensuring that you feel comfortable during therapy. This user manual provides you with the information you need for the correct use of your mask.

#### Intended Use

The F2 Full Face Mask channels airflow non-invasively to a patient from a positive airway pressure device such as a continuous positive airway pressure (CPAP) or bi-level system.

The F2 Full Face Mask is:

- to be used by adult patients (> 66 lb / 30 kg) for whom positive airway pressure therapy has been prescribed.
- intended for single-patient re-use in the home environment and multi-patient re-use in the hospital / institutional environment.

CAUTION: In the US, Federal law restricts the sale of this device to sale by or on the order of a physician.

#### **Before Using the Mask**



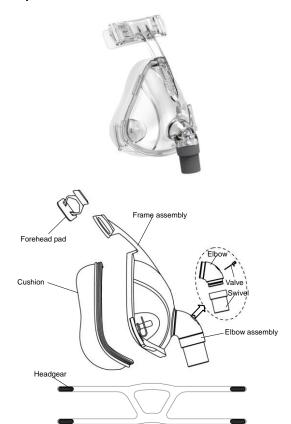
# WARNINGS

- The vent holes must be kept clear.
- Explanation of Warning: CPAP systems are intended to be used with special masks with connectors which have vent holes to allow continuous flow of air out of the mask. When the CPAP machine is turned on and functioning properly, new air from the CPAP machine flushes the exhaled air out through the attached mask exhalation port. However, when the CPAP machine is not operating, enough fresh air will not be provided through the mask, and exhaled air will be rebreathed. Rebreathing of exhaled air for longer than several minutes can, in some circumstances, lead to suffocation. This warning applies to most models of CPAP systems.
- At low CPAP pressures the flow through the exhaled port may be inadequate to clear all exhaled gas from the tube. Some rebreathing may occur.
- To minimize the risk of vomiting during sleep, the patient should avoid eating or drinking for three hours before using the mask.
   This mask is not recommended if the patient is taking a prescription drug that may cause vomiting.
- Do not use the mask without the Non-Rebreathing Valve in place.
- This mask should not be used on patients who are uncooperative, obtunded, unresponsive, or unable to remove the mask.
- Follow all precautions when using supplemental oxygen.
- Oxygen flow must be turned off when the flow generator is not operating, so that unused oxygen does not accumulate within the flow generator enclosure and create a risk of fire.
- At a fixed flow rate of supplemental oxygen flow, the inhaled

oxygen concentration varies, depending on the pressure settings, patient breathing pattern, mask, point of application and leak rate.

- The technical specifications of the mask are provided for your clinician to check if it is compatible with the flow generator. If it is used beyond technical specifications or used with incompatible devices, the seal and comfort of the mask may not be effective, optimum therapy may not be achieved, and leak, or variation in the rate of leak, may affect the function of the flow generator.
- Stop using the F2 Full Face Mask and consult your physician or sleep therapist, if you have ANY adverse reaction to the use of the mask.
- Refer to your flow generator manual for details on settings and operational information.

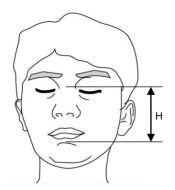
## Components of the F2 Full Face Mask



Components of the F2 Full Face Mask

# **Getting the Right Cushion Size**

- The following drawing describes the different features of face and the length of the face (H) you need to measure.
- The masks are available in three different sizes.
- Choose the appropriate size according to the table below.



H (mm)	Size
80 ≤ H ≤ 90	S
90 < H ≤ 100	М
100 < H ≤ 115	L

Getting the Right Cushion Size

### **Fitting the Mask**

Use a standard conical connector if pressure readings and / or supplemental oxygen are required.





Pass the upper straps of the headgear through the installation hole of the mask as shown in the figure and secure it, repeat the process with the lower straps.

2



Place the mask on the face and extend the headgear to the back of the head / Please confirm that the label on the back of the headgear faces outward when the headgear is worn.

3



Bring the lower-half straps beneath the ear and encircle the face and then insert it into the fixed hook on the lower-half part of the mask frame.

4



Extend the upper-half straps of the headgear as shown in the above figure until the mask is fixed properly.



Repeat the process for the lower-half headgear as shown in the above figure until the mask is fixed properly.





Open the device for the air supply. Attach the respiratory hose with the connector on the base of the mask. Adjust the position of the mask to confirm a tight seal.

### Disassembling the Mask

#### Notes:

- The elbow assembly cannot be dissembled from the frame assembly.
- 2. The elbow assembly cannot be disintegrated.
- 3. The valve cannot be dissembled, or damage may be incurred and the re-installation will become more difficult.



2



Undo and remove the upper-half headgear straps out of the hole on the mask frame.

Remove the cushion from the installation groove on the mask frame.

Remove the forehead pad from the installation groove on the mask frame.

#### Cleaning the Mask at Home

#### Notes:

- The mask and headgear can only be cleaned through hand washing.
- The elbow, the swivel and the valve cannot be dissembled for washing.



#### CAUTIONS

- Do not use solutions containing bleach, chlorine, alcohol, aromatics, moisturizers, antibacterial agents, or scented oils to clean any part of the system or air tubing. These solutions may cause damage and reduce the life of the product.
- Exposing any part of the system or tubing to direct sunlight or heat may cause deterioration.
- If any visible deterioration of a component is apparent (cracking, crazing, tears etc), the component should be discarded and replaced.

#### Daily / After Each Use

- Disassemble the mask components according to the disassembly instructions.
- Thoroughly clean the separated mask components (excluding headgear), by gently rubbing in warm (approx. 30°C) water using mild soap.
- Use a soft bristle brush to clean the vent.
- Rinse all components well with drinking quality water and allow to air dry out of direct sunlight.
- When all components are dry, reassemble according to the reassembly instructions.

#### Weekly

Hand wash the headgear and all components in warm (approx. 30°C) and soapy water. Use pure soap. Rinse the components well and allow them to air dry out of direct sunlight.

## Reprocessing the Mask between Patients

This mask should be reprocessed when used between patients. Cleaning and disinfection instructions are available from the BMC website, www.bmc-medical.com. If you do not have internet access, please contact your BMC representative.

## Reassembling the Mask



Install the forehead pad onto the upper-half installation groove of the mask frame.



onto the lower-half installation groove of the mask frame and confirm the proper engagement between the silicone gel pad and the

installation groove.

Install the cushion

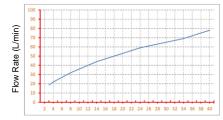


Install the upper-half headgear onto the upper-half installation hole of the mask frame.

# **Troubleshooting**

Problem	Possible Reason	Possible Solution		
Mask won't seal properly or is uncomfortable.	Mask may have been fitted incorrectly.	Carefully follow instructions in "Fitting the Mask" section. Make sure the headgear is not over-tightened.		
	Mask size is wrong.	Consult your clinician.		
Mask leaks around the face.	The cushion is misplaced on the cushion frame.	Check insertion of the cushion and reinsert correctly according to the instructions in "Reassembling the Mask" section.		
	Mask size is wrong.	Consult your clinician.		
Mask is too noisy.	Vents are blocked or partially blocked.	Clean the vents according to the instructions in "Cleaning the Mask at Home" section.		

# **Technical Specifications**



Pressure-Flow Curve

#### Mask Pressure (cmH<sub>2</sub>O)

Pressure (cmH <sub>2</sub> O)	3	4	8	10	12	16	20	25	30	35	40
Flow Rate (L/min)	18	22	32	36	40	47	53	60	65	71	78

Dead Space Information	Dead space is the empty volume of the mask up to the swivel.  The dead space of the mask varies according to cushion sizes but is less than 218 mL.			
Therapy Pressure	3 to 40 cmH <sub>2</sub> O			
Resistance	Drop in Pressure measured (average for 3 sizes) at 50 L/min: $0.15 \text{ cmH}_2\text{O}$ at $100 \text{ L/min}$ : $0.5 \text{ cmH}_2\text{O}$			
Inspiratory and Expiratory Resistance	The inspiratory resistance of the mask (in combination with the Non-Rebreathing Valve) is 1.8 cmH $_2$ O at 50 L/min. The expiratory resistance of the mask (in combination with the Non-Rebreathing Valve) is 2.0 cmH $_2$ O at 50 L/min.			
The Non-Rebreathing Valve open-to-atmosp here pressure	1.0 cmH <sub>2</sub> O			

The Non-Rebreathing Valve closed-to-atmosp here pressure	1.2 cmH <sub>2</sub> O
Sound	DECLARED DUAL-NUMBER NOISE EMISSION VALUES in accordance with ISO 4871. The A-weighted sound power level of the mask is 28 dBA, with uncertainty 3 dBA. The A-weighted sound pressure level of the mask at a distance of 1 m is 20 dBA, with uncertainty 3 dBA.
Environmental Conditions	Operating temperature: $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ (41°F to 104°F) Operating humidity: 0% $\sim$ 93% relative humidity non-condensing Storage and transport: $-20^{\circ}\text{C}$ to $+55^{\circ}\text{C}$ (-4°F to 131°F) Storage and transport humidity: 0% $\sim$ 93% relative humidity non-condensing

## Storage

Ensure that the mask is thoroughly clean and dry before storing it for any length of time. Store the mask in a dry place out of direct sunlight.

## Disposal

The mask does not contain any hazardous substances and may be disposed of with your normal household refuse.

#### **Symbols**

#### System and Packaging



Caution, consult accompanying documents.

Indicates a Warning or Caution and alerts you to a possible injury or explains special measures for the safe and effective use of the device.



Lot number



Catalog number



Not made with natural rubber latex



Temperature limitation



**Humidity limitation** 



Manufacturer



Authorized Representative in the European Community

### **Limited Warranty**

It is warranted that the F2 Full Face Mask, including Frame assembly, Cushion, Forehead pad, Headgear shall be free from defects in material and workmanship for a period of ninety (90) days from the date of purchase by the initial consumer.

To exercise the rights under this warranty, contact the local authorized dealers.

The expected service life of F2 Full Face Mask is one year.

#### MANUFACTURER: BMC MEDICAL CO., LTD.

Room 110 Tower A Fengyu Building, No. 115 Fucheng Road, Haidian, 100036 Beijing, PEOPLE'S REPUBLIC OF CHINA

Tel: +86-10-51663880

Fax : +86-10-51663880 Ext. 810

#### **EU AUTHORISED REPRESENTATIVE:**

Shanghai International Holding Corp. GmbH (Europe)

Eiffestraβe 80, 20537 Hamburg, Germany

Tel: 0049-40-2513175 Fax: 0049-40-255726

Issue date: March 15, 2017