GINEVRI

neo-tech for life

MADE IN ITALY

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

Just a little NIV preface &

PRODUCT PRESENTATION

SPECIAL FEATURES

ACCESSORIES AND CONSUMABLES

MAINTENANCE, REPAIR AND OPERATIONS

Just a little NIV preface

Terminology

Techniques that don't improve gas-exchange

- NCPAP
- HFNC
- BiPAP

↓

Non-Invasive Respiratory Support

Techniques that improve gas-exchange

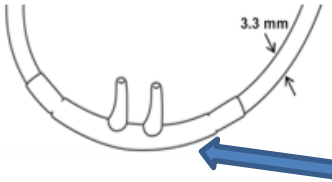
- NIPPV
- SNIPPV
- NHFO

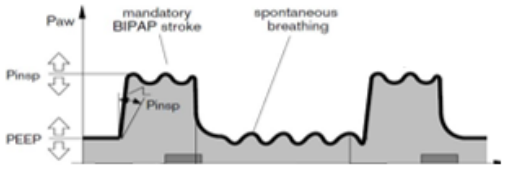
↓

Non-Invasive Ventilation

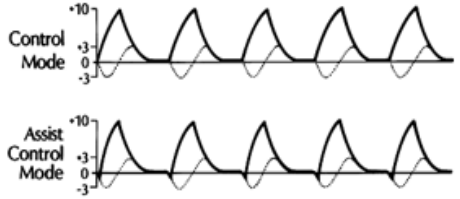
NIV TECHNIQUES

- Humidified high-flow nasal cannula (HFNC)
- Continuous positive airway pressure (CPAP)
- Bilevel positive airway pressure (BiPAP)
- Intermittent positive pressure ventilation





NO effect on the Tidal Volume

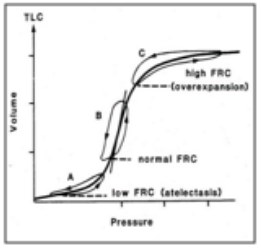


NIV: physiological effects

FRC (PEEP) ↑

- recruitment of collapsed or non-ventilated alveoli
- decreases airway/pulmonary resistances
- improves ventilation-perfusion ratio

PaO_2 ↑



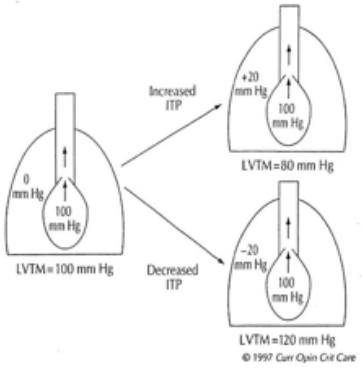
Vt (PIP)

- improves minute volume

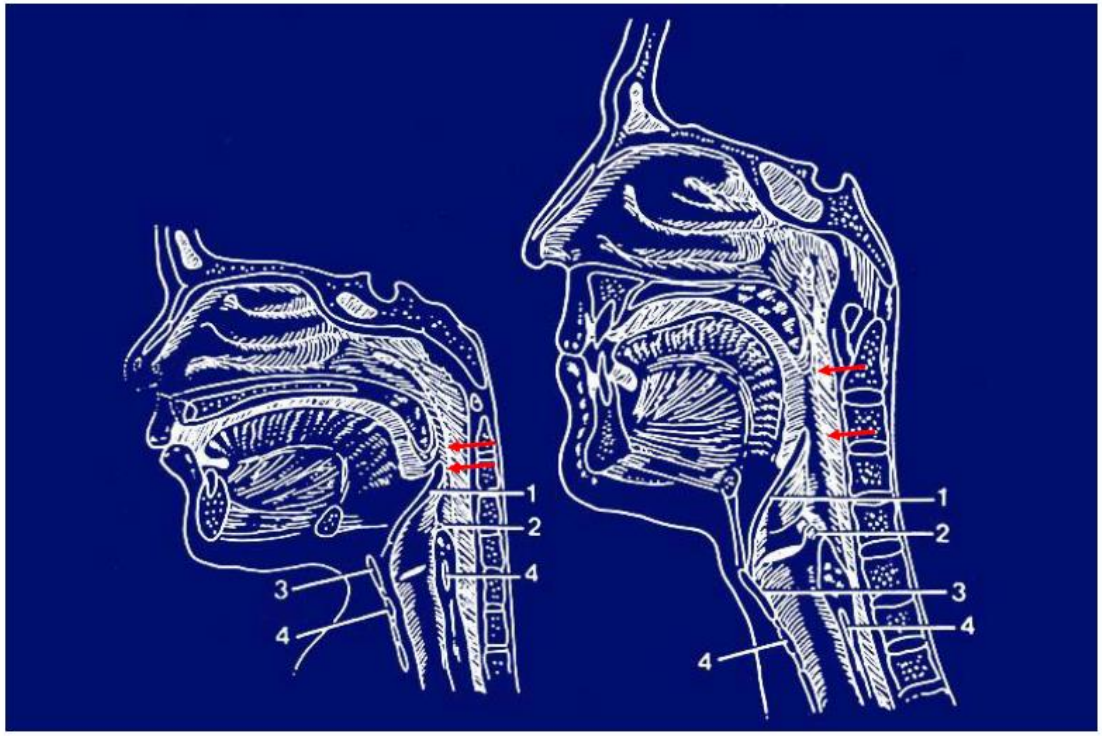
$PaCO_2$ ↓

Work of breathing ↓

Cardiac output ↑



…why does non invasive ventilation work in neonates?



Anatomy of the newborn.

Soft palate and glottis are very close.

This is useful for performing a nasal ventilation.

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

PRODUCT PRESENTATION

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

The ventilator G*i*UL*I*A has been studied and manufactured to give breathing support to a patient with breathing deficit, by performing non invasive or invasive ventilation. The ventilator G*i*UL*I*A uses three types of patient interfaces: endotracheal tube, nasal cannula and nasopharyngeal tube.

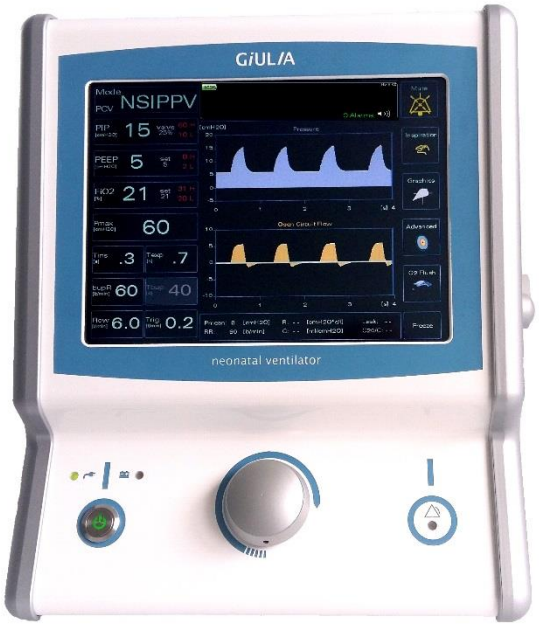
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

The G*i*UL*I*A ventilator, initially developed only to carry out flow-SNIPPV, has been improved to perform also all the invasive ventilation modes!!

IMPROVEMENTS

G*i*UL*I*A has been recently improved with:

- Invasive Ventilation Modes
- Encoder and color 10.4” Touch-Screen Digital Settings
- Manual and Automatic Alarms
- Pressure, Flow, Volume and Loop Graphical Trends
- Target Volume
- Measurements of Compliance and Resistance
- Acoustic Signal of Trigger Activation
- O2 Flush
- Battery Level
- Data Exporting
- HFNC



FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

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CHARACTERISTICS

The New G*i*UL*I*A can be used with patients of up to 10 kg weight in tracheal mode, 5 kg in NIV mode.

VENTILATION MODES

The following conventional invasive and non-invasive ventilation modes can be set:

ventilation modalities:

- **CPAP** (Continuous Positive Airway Pressure)
- **IPPV** CMV(Intermittent Positive Pressure Ventilation)
- **A/C** or **SIPPV** (Synchronized Intermittent Positive Pressure Ventilation)
- **A/C** or **SIPPV** + **VG** in volume control
- **SIMV** (Synchronized intermittent Mandatory Ventilation)
- **SIMV** + **VG** in volume control

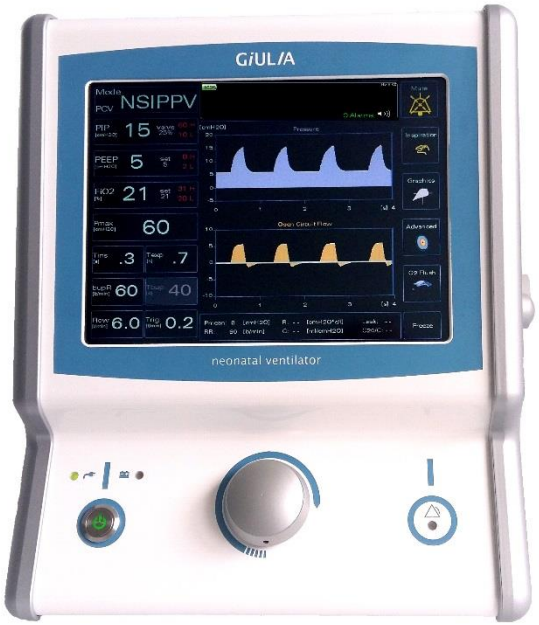
non invasive ventilation modalities:

- **NCPAP** (Nasal Continuous Positive Airway Pressure)
- **NIPPV** CMV (Nasal Intermittent Positive Pressure Ventilation)
- **NSIPPV** (Nasal Synchronized Intermittent Positive Pressure Ventilation)
- **NSIMV** (Nasal Synchronized Intermittent Mandatory Ventilation)
- **HFNC** (High Flow Nasal Cannula)

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

FLOW SENSORS

G*i*UL*I*A is supplied with two different type of flow-sensors. Both are simple differential pressure transducers without any electrical components: two size for invasive ventilation to calculate tidal volume, and two size for non-invasive ventilation, which comes in 2.5 and 3.5 mm sizes.
The flow sensor guarantees a response time of less than 100 ms. The flow sensors for invasive ventilation are autoclavable and reusable.



SMART FLOW KIT NIV

The flow-sensor for non-invasive ventilation gives maximum lightness and comfort for the patient. The single-use “Smart-Flow NIV Kit” for non-invasive ventilation includes nasal prongs and bonnets, and comes in four different sizes for infants of different weights.

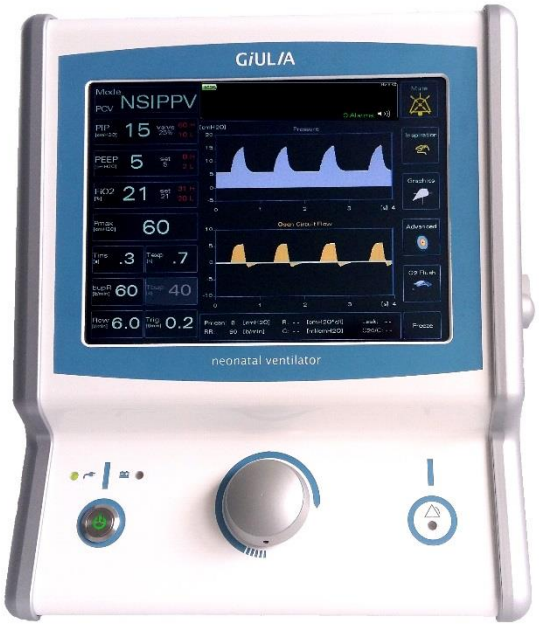
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

NASAL PRONGS

The nasal prongs are made from a very soft material and are designed to adapt to the newborn's nostrils in the most comfortable way.

ALARM SYSTEM

The G*i*UL*I*A ventilator has all the alarms necessary for correct and safe management of invasive and non-invasive respiratory care. The alarms are both visual and acoustic, and are color-coded for priority.



HUMIDIFIER

The G*i*UL*I*A ventilator is compatible with all commercial humidifiers, however GINEVRI strongly recommends using it with the new WETTY humidifier, which ensures a high level of humidity in the respiratory circuit with a very low quantity of condensation.

O2 FLUSH

This function delivers a preset oxygen concentration for a predetermined time.

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

FRONT VIEW

1	On/Off Switch	2	Encoder
3	Led Mains	4	Led Battery
5	Led Alarm	6	Monitor with Touch Screen

On/Off Switch

The On/Off Switch is used for:

- Run the automatic tests on pressure and O2 sensors when the Ventilator is turned on.
- Turn off the Ventilator.
- To disable the Touch Screen.

The On/Off Switch is illuminated when the main power supply is present. It is not illuminated when it is pushed.

Encoder (knob)

The encoder (knob) is used for the following operations:

- Confirm choices inside the menu;
- Select and run menu operations;
- Set Parameters.

Rotate clockwise or counter clockwise to change the selected parameters.

Push to confirm the selected value.

Led Mains

The Led Mains, when is on indicates the presence of the power supply (230 Vac), if off the ventilator is not supplied by main power.

Led Battery

The Led Battery, when on indicates the ventilator is powered by batteries, when off indicates that it is powered by main power.

Led Alarm

The Led Alarm, when on indicates that an alarm is present, when off indicates that no alarm is present.

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

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RIGHT VIEW

1 Pmax Valve
2 Inspiratory Tube Connector
3 Expiratory Valve
4 Expiration Tube Connector
5 Pressure and Flow Sensor Tube Connectors

Pmax Valve

The Pmax Valve limits the maximum pressure in the patient circuit at 60 mbar maximum. The Setting is done by the manufacturer and can be modified only by specialized and qualified personnel using specific tools.

Expiratory Valve

The Expiratory Valve allows to realize the pressures necessary to the ventilation of the patient through the movement of a magnetic valve.

Expiration Tube Connector

Female 15mm Connector for Expiration Tube.

Inspiration Tube Connector

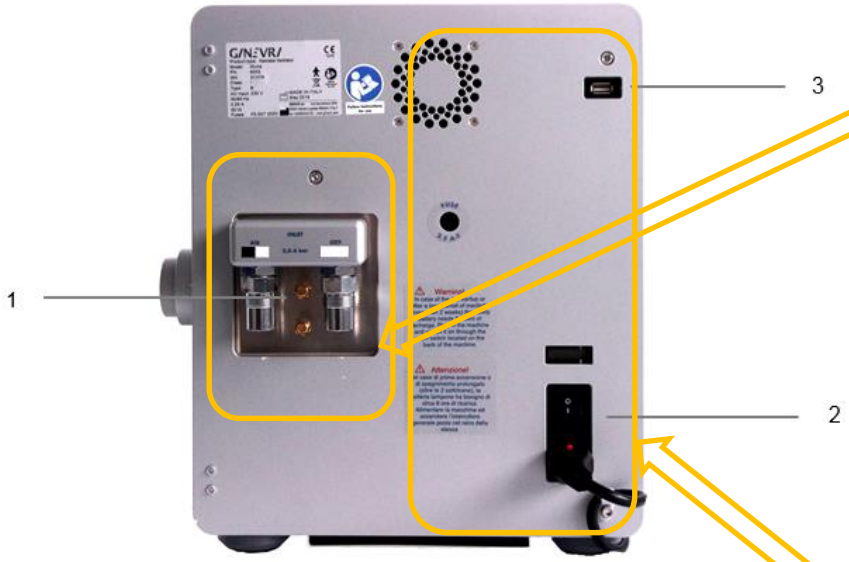
Female 15mm Connector for Inspiration Tube.

Pressure and Flow Sensor Tube Connectors

7mm Pressure and Flow Tube Connectors, for the double connection of flow measurement in the patient circuit.

The red sensor tube must be connected to the red dot.

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION



BACK VIEW

1 Pneumatic Module
2 Power Supply Module
3 USB

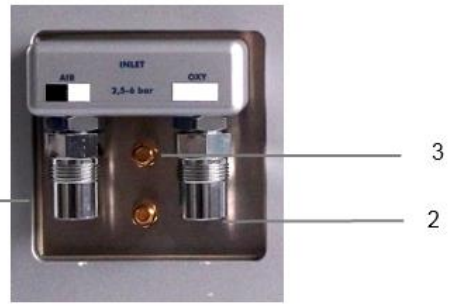
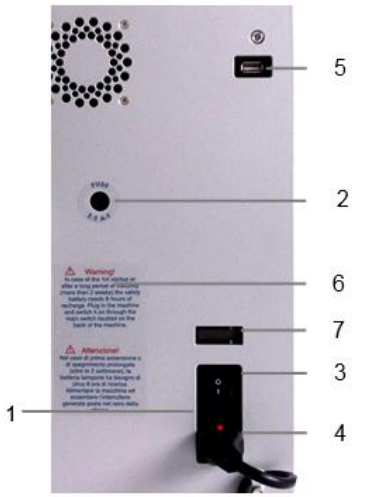


Fig. 4: Pneumatic Module

1 AIR Connector (NIST)
2 O_2 Connector (NIST)
3 Air Outlet

1 Main Fuses
2 Battery Fuses
3 ON/OFF Switch
4 Power Socket
5 USB
6 Battery Label
7 Counter



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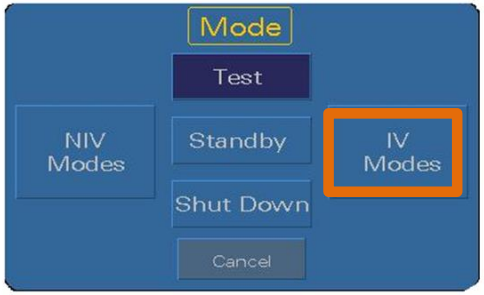
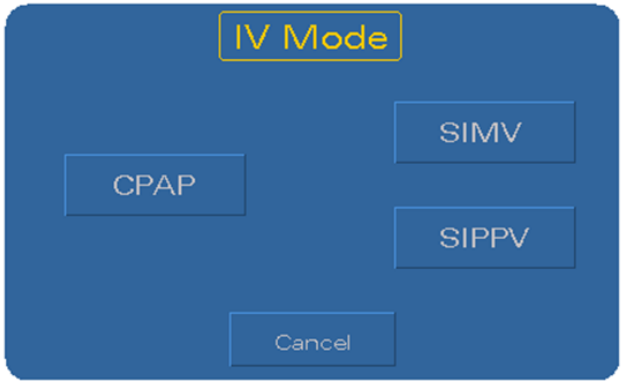
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

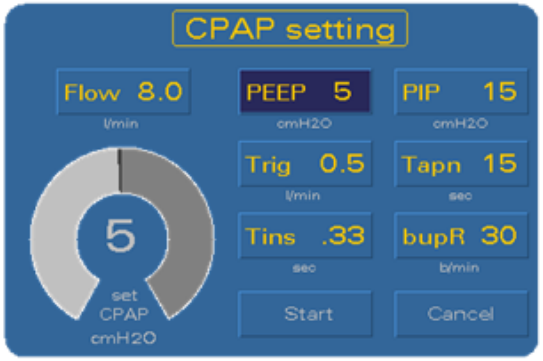
SPECIAL FEATURES

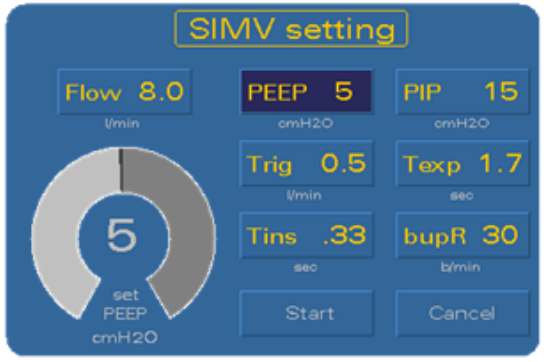
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

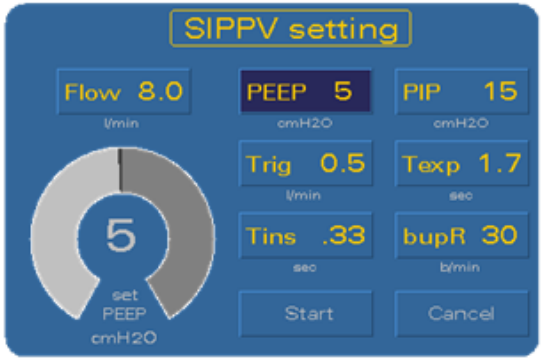
INVASIVE VENTILATION MODES





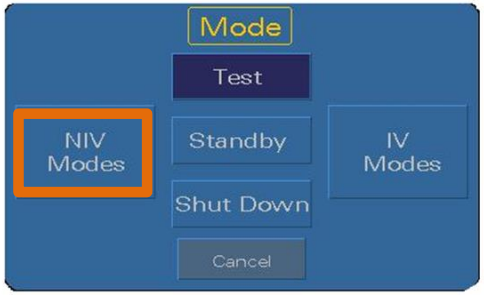


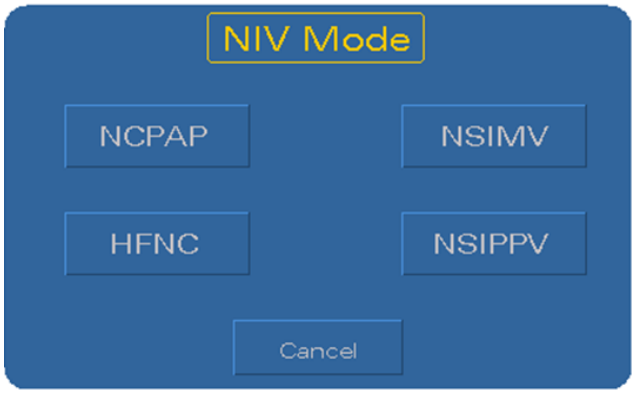


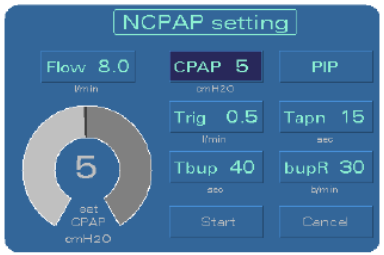


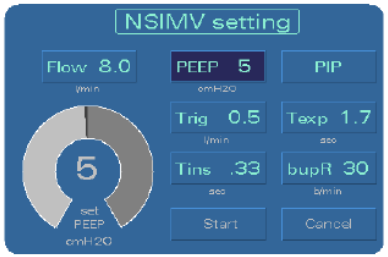
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

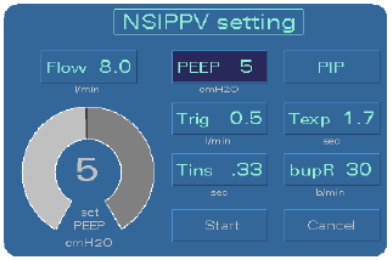
NON INVASIVE VENTILATION MODES





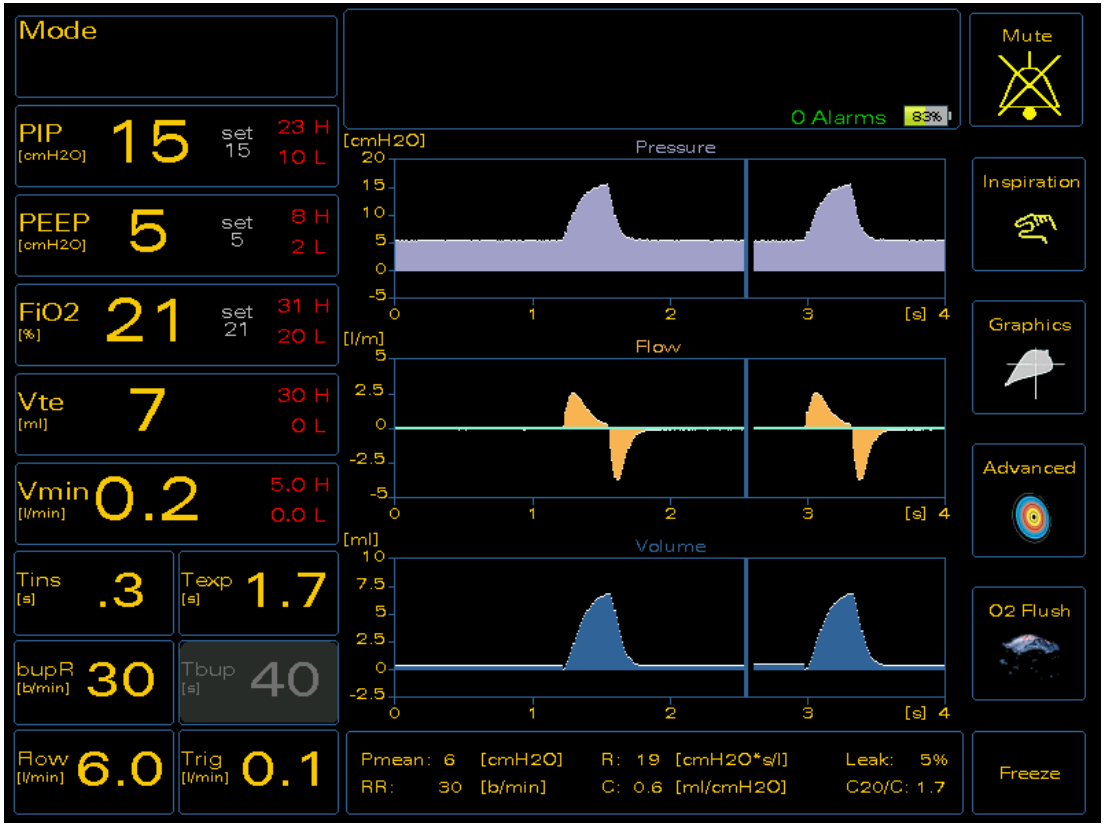






FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

The G*i*UL*I*A ventilator is equipped with a **10" color touch screen display**. By touching the areas relative to the parameters shown on screen it is actually possible to set those parameters



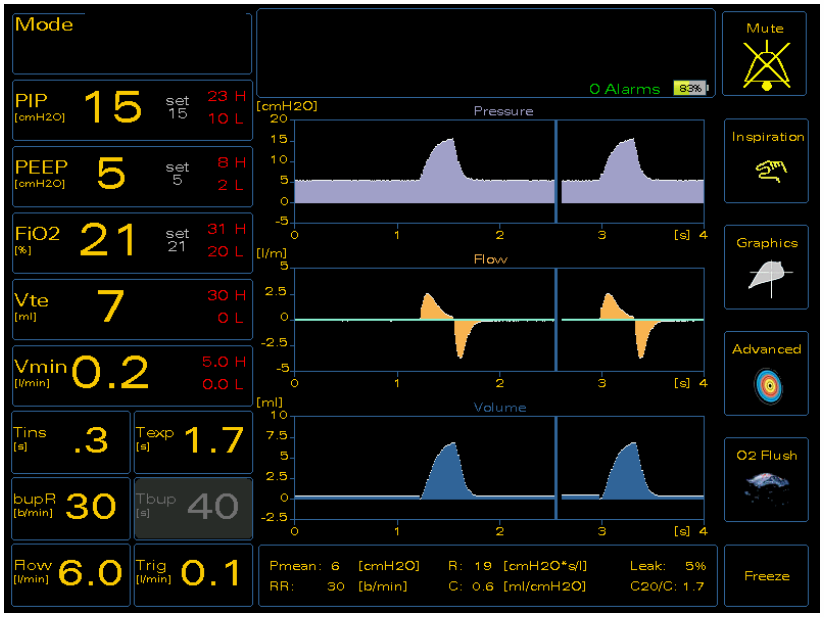
TOUCH SCREEN

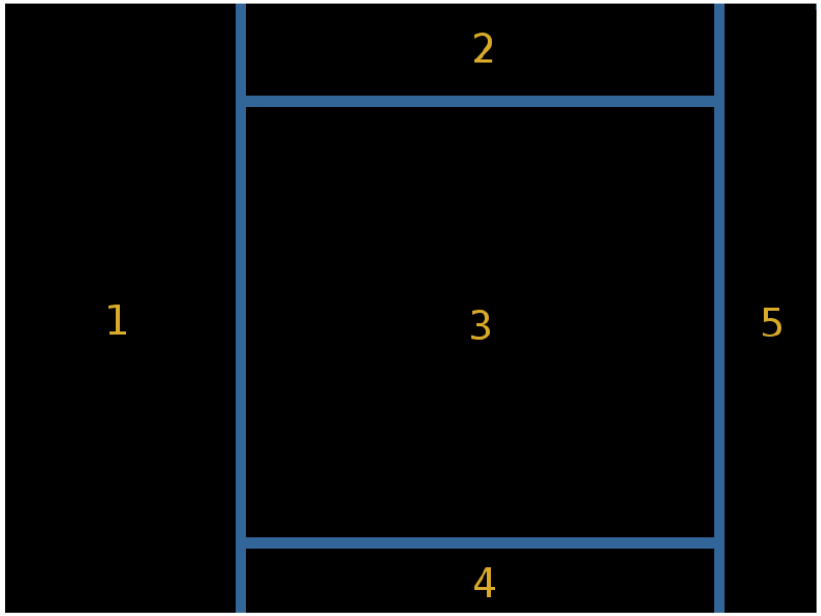
User Interface:

- Ease of Use
- Color Codes
- Intuitive

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION TOUCH SCREEN

The display is divided in **5 areas (sectors)** each of which relates to a particular function or group of functions



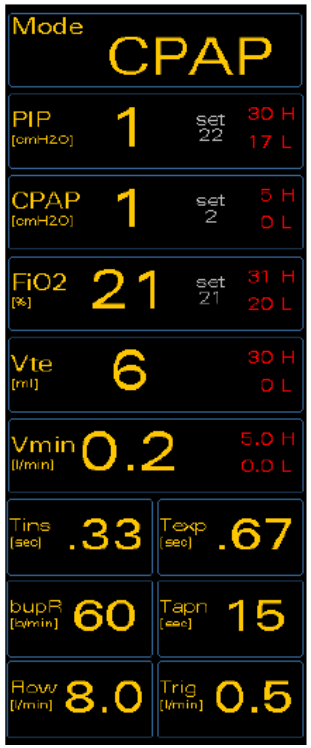


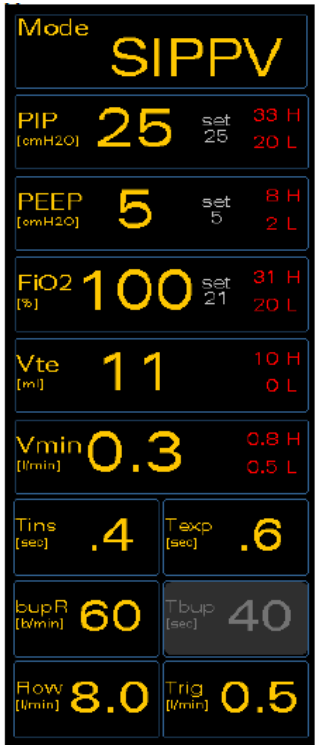
1 Ventilator Parameters Section
2 Alarms Section
3 Trend Section
4 Physiological Parameters Section
5 Button Section

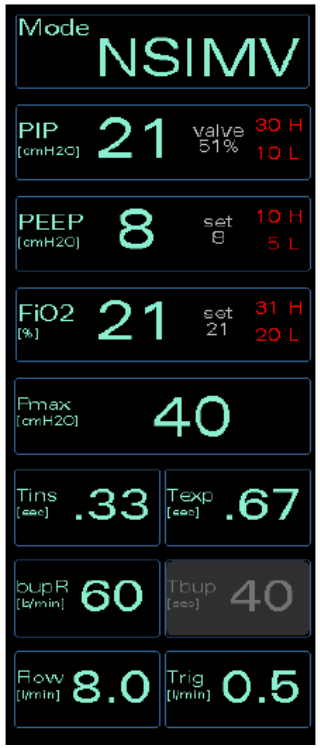
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION TOUCH SCREEN

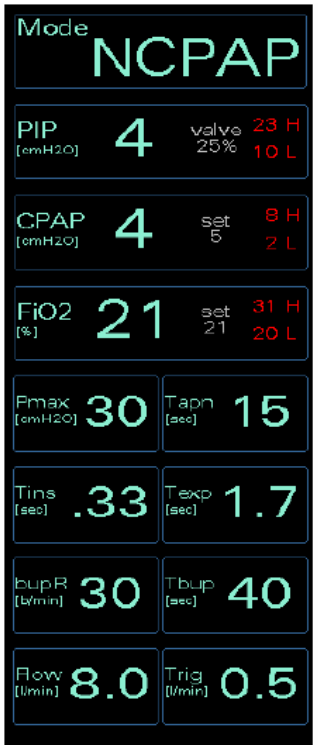
The **section 1** of the monitor is divided into different active areas defined by blue boxes. By touching inside the box it is possible to set the values relative to the box. When it is touched, the whole active area is highlighted in blue and a setting window is opened.

This section offers an immediate visualization of the relevant measured values together with the alarm limits, indicated in red. A detailed description of how to regulate the parameters and the alarm limits can be found in the following paragraphs.









FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

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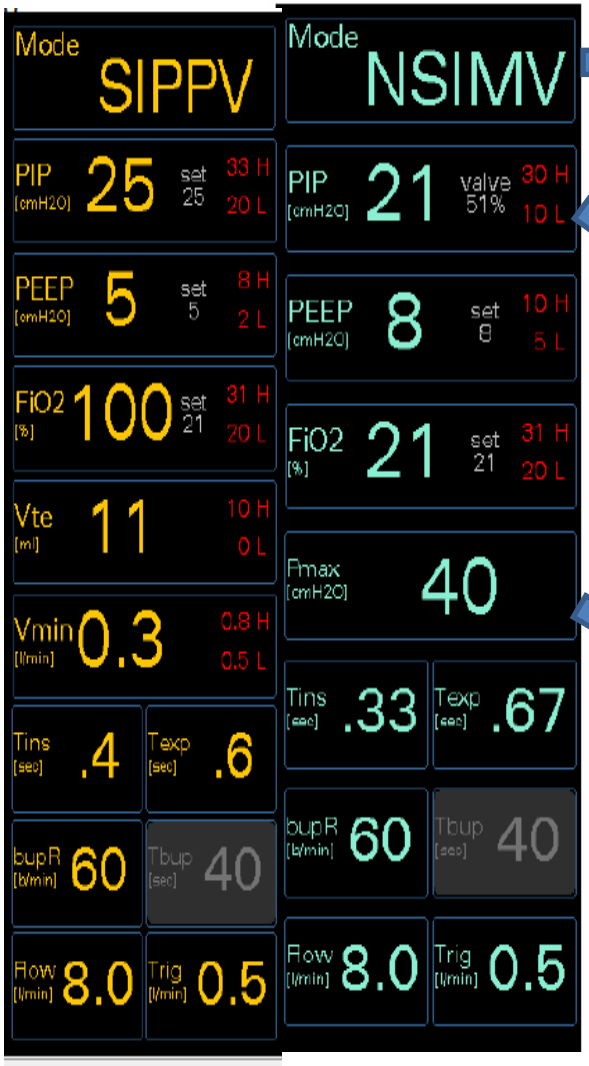
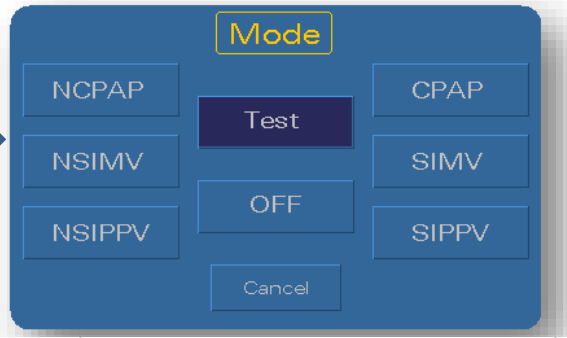
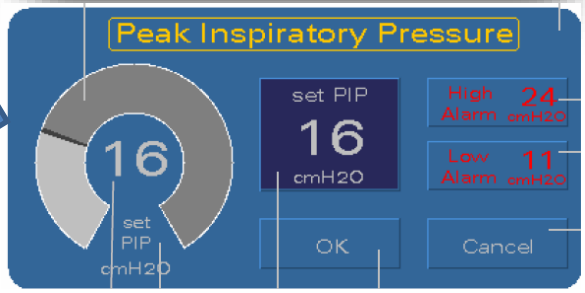
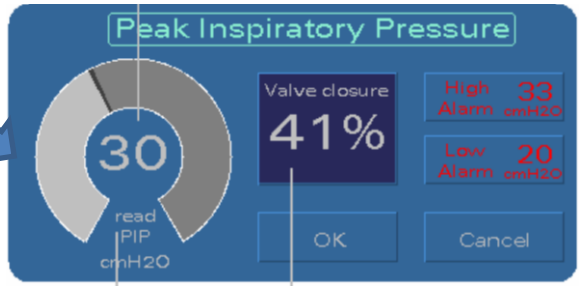


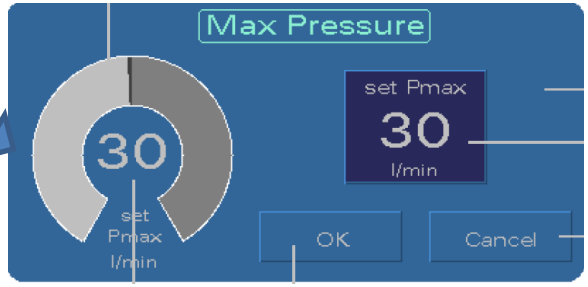
Invasive Ventilation

Non Invasive Vent.

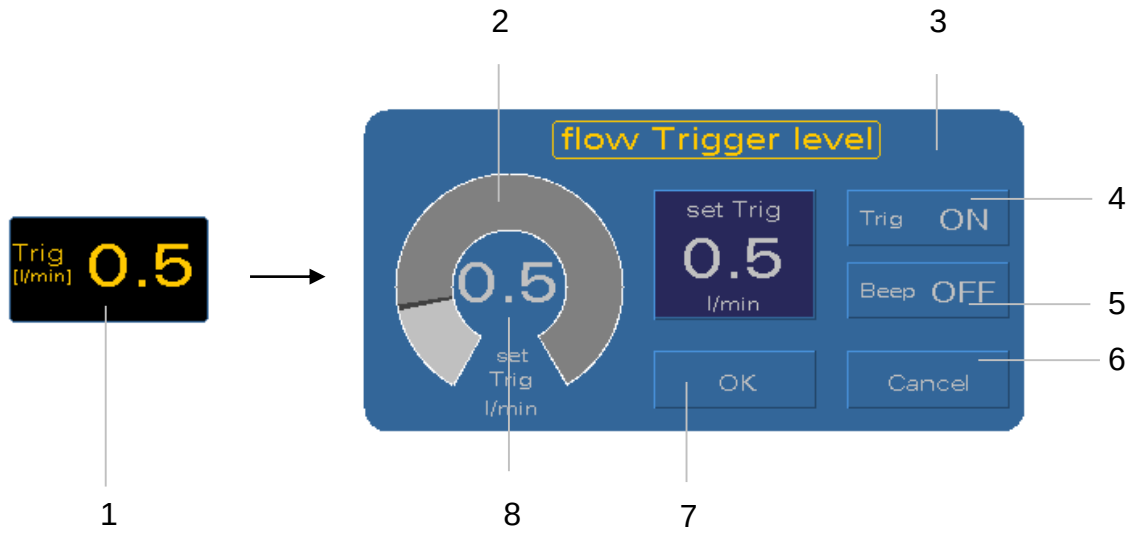








FLOW TRIGGER LEVEL

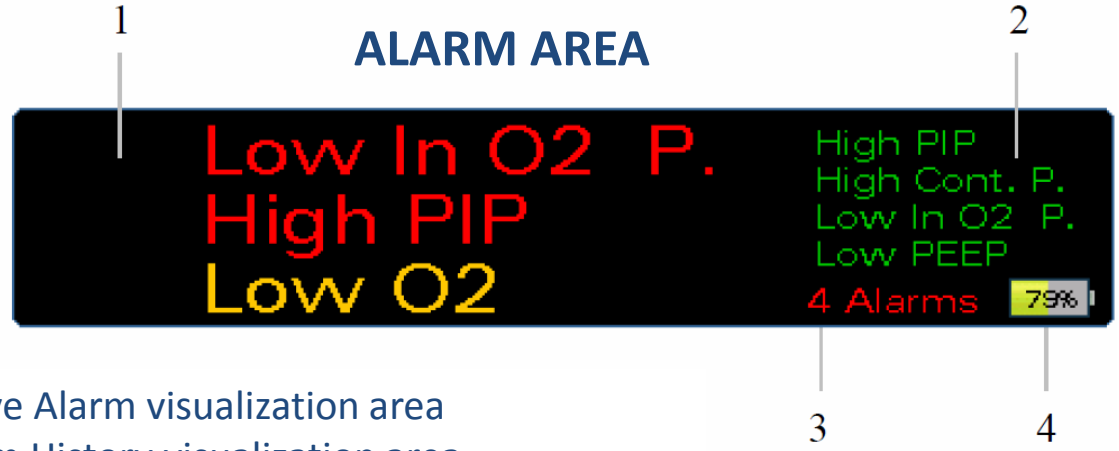


1 "Trig" area	5 Trigger Sound activation area
2 Parameters Modification Crown (CMP)	6 Cancel
3 Trig setting window	7 Confirm
4 Trigger activation area	8 Value of the parameter that is being set

Flow trigger level diabling.

It is possible to set the IPPV by simply disabling the trigger during SIMV or SIPPV simply disabling the trigger when SIMV or SIPPV area running.

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION



1 - Active Alarm visualization area
2 - Alarm History visualization area
3 - Number of active alarms
4 - Battery Charge status

ALARM

The G*i*UL*I*A has various alarms to protect the patient and inform the user about the relative changes in the patient conditions or on eventual defects of the device. All the alarms are both acoustics and visuals, with a simple text message, **colored according to priority**. Maximum three alarms are shown at the same time. In case the active alarms are more than three the same will be visualized cyclically in groups of three.

BATTERY

The battery charge status is indicated as follows:

- Charge between 90 – 100 % (Battery charged) 
- Charge between 50 – 90 % (Battery in charge) 
- Charge between 0 – 50 % (Low Battery) 

The exact battery charge status is indicated inside the battery icon.

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

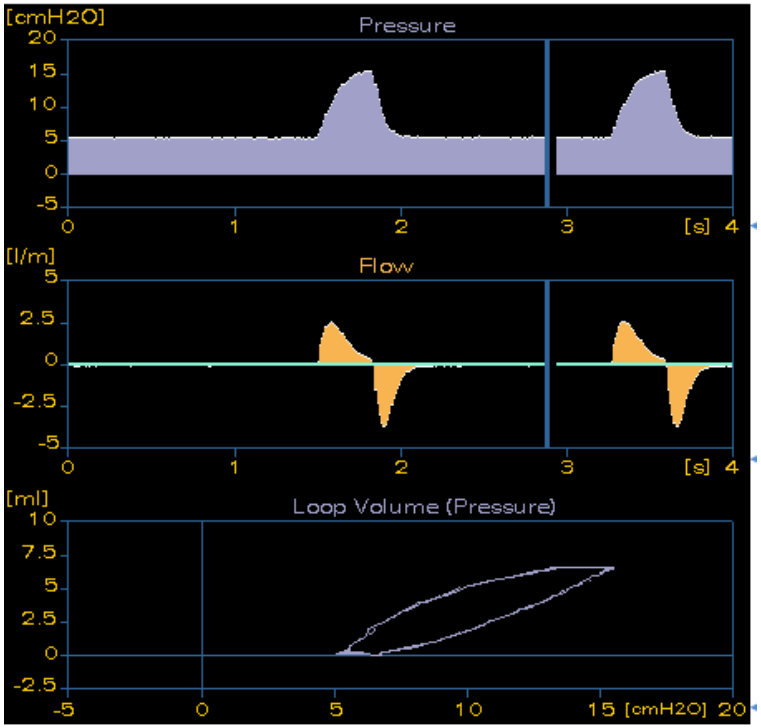
Graphical Trend

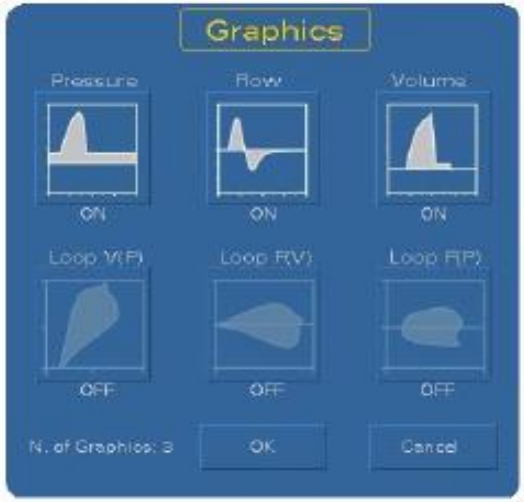
In the central part of the display are shown from one to three graphical trends showing the curves of pressure, flow, volume, or the diagrams “loop” V(P), F(V), F(P).

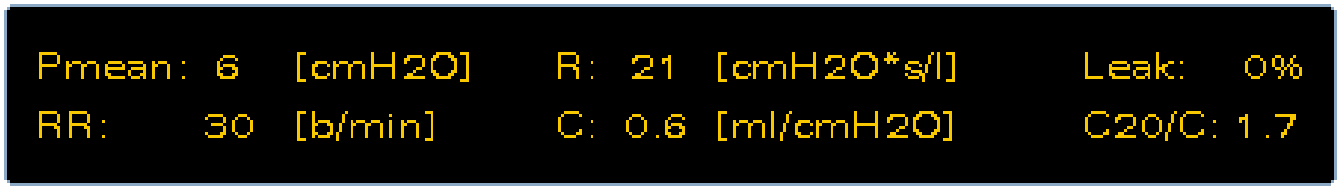
Number of Trends

It is possible to choose from one to three graphical trends to be visualized at the same time in the section “Graphics” of the display. To set the number of graphics choose the button “Graphics”

With three graphs it will be possible to keep under visual control more parameters among those available. If only one or two graphs are selected the relative curves will be bigger.







Physiologically measure parameters

In the **lower part of the screen**, in section 4 the values of some physiological parameters are reported.

Parameter	Meaning	Description
Pmean	Mean Pressure	It is calculated as: (Pip * Tinsp + PEEP * Tesp)/ (Tinsp+Tesp)
RR	Respiratory Rate	Measured on the patient flow signal
R	Resistance	It is calculated from the response timings of the Respiratory System+Circuit+Patient to the variations on inspiration flow.
C	Compliance	It is calculated as: Vte/(PIP-PEEP)
Leak	Leakages	It is calculated as percentage of: End Expiratory Vt / Inspiratory Vt
C20/C	Ratio between Compliance in the last 20% of the inspiration phase (C20) and Total Compliance (C)	C = Vte/(Pip-PEEP) C20 = Vte/(Pip-PEEP) in the last 20% of expiration

GINEVRI

Buttons

In the **right part** of the display are positioned the buttons the allow various options and functions of the ventilator

Touch this button to mute the acoustic alarms. The activation of the button will be confirmed by the blue background of the relative box. The muting is applied only to the already active alarms. Moreover, any new alarm will immediately cancel the muting. The length of the muting is of 2 minutes

Touch this button to activate the manual inspiration at the set PIP level.
The maximum length of the manual inspiration can be set from 1 to 10 seconds from the Advanced->Inspiration menu

Touch this button to open the graphical trends menu and choose the number and type of trends to visualize. It is possible to choose from one to a maximum of three trends to be shown at the same time

Touching the Advanced button the advanced options window

Touch this button, to supply a preset oxygen concentration 21%-100% for a preset length of time 10-300s (10s step). The setting can be done in the Advanced Options menu "O2 Flush"

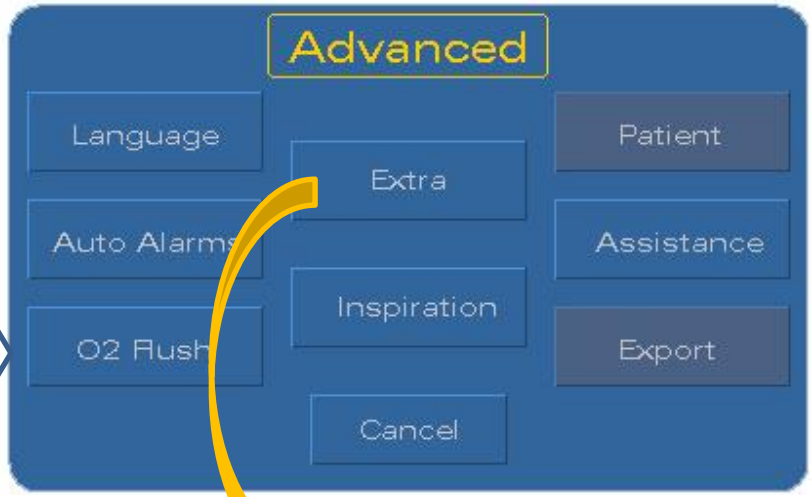
Touch this button, to freeze the graphical trends. During the freeze, the ventilator continue ventilating and the Freeze button blinks in red. To unlock the screen press again the button (active area). During the freeze grids are drawn on the graphical trends to better evaluate the values of the parameters

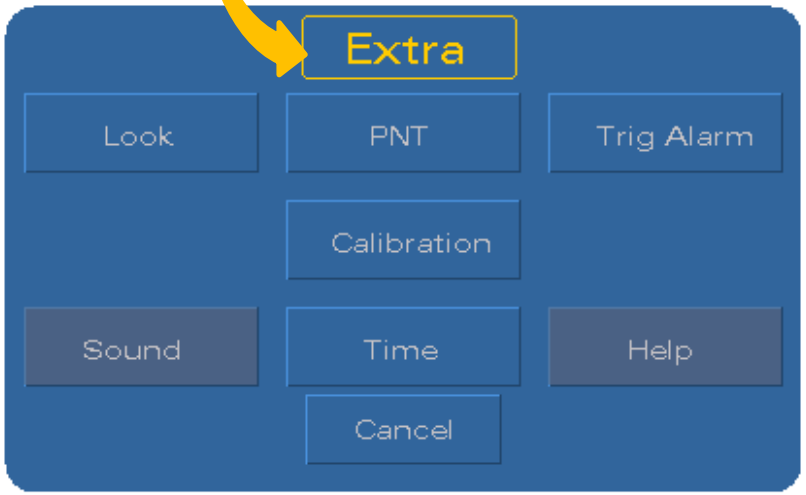
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

Advanced

From this menu it is possible to optimize the customization of the ventilator to the needs of the user. Every advanced button will activate the relative function described in the following paragraphs.





GINEVRI

Data Export

Using a pen drive it is possible to export data from the G*i*UL*I*A ventilator.

The export data procedure expect to plug the pen drive in the USB port of G*i*UL*I*A 's rear panel.

In the Alarm panel, a grey symbol will appear some seconds after the plug of the pen drive

Data will be transfer.

When the transfer is completed the symbol change color to green.

When the data export is completed it is possible to remove the pen drive from the USB port.

Inside the folder "OUTPUT_1234567890" there will be two kind of files: text files and pictures.
Text files name include the creation date:

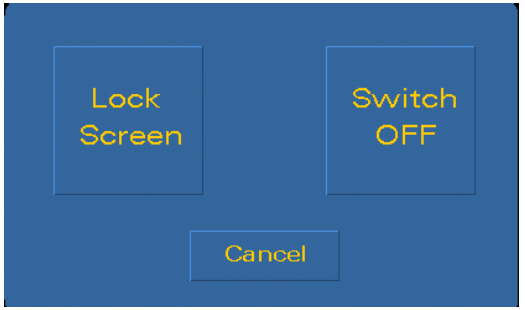
"backup_yyyymmdd_hhmmss_cs.csv"

Inside the files there are the followings informations tabulated:

Data: yy/mm/dd
Hour: hh:mm:ss:cs
Mode: Ventilation mode is indicated with integer number – OFF=0; TEST=1; nCPAP=2; nSIPPV=3; nSIMV=4; CPAP=5; SIPPV=6; SIMV=7.
PIP: Peak Inspiratory Pressure [mbar]
PEEP: Positive end-expiratory Pressure [mbar]
FIO2: Fraction of inspired Oxygen [%]
Vte: Expiratory Tidal Volume [ml]
VG: The zero value means that the Target Volume is not active.
Vmin: Minute Volume [ml/min]
Tinsp: Inspiratory Time [s/100]
Texp: Expiratory Time [s/100]
R: Breath resistance [cmH2O/l/s]
C: Lung compliance [ml/cmH2O]
Alarm: Active Alarm list
Battery Level: Residual battery charge [%]

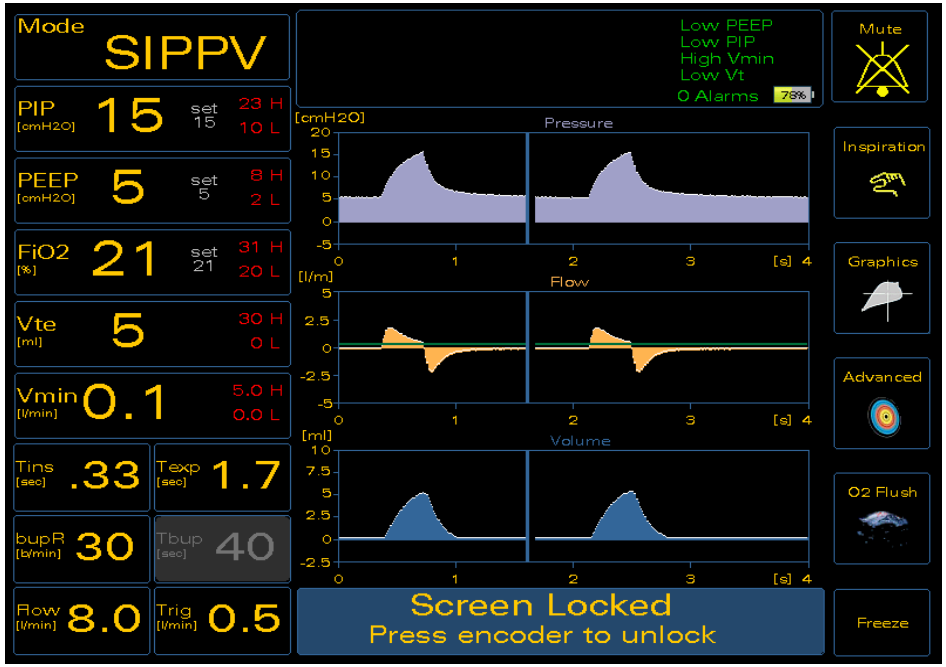
Clean Screen Mode (“Lock Screen”)

Pushing the “ON/OFF” button it is possible to put the G*i*UL*I*A in “LOCK SCREEN” mode



In this mode it is possible to touch the screen without changing the settings, it will therefore be possible also to clean the screen.

To get back to the standard mode push the encoder



FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

ALARM SYSTEM

The Endotracheal version of G*i*UL*I*A is equipped with all the needed alarms to protect the patient. All the alarms are acoustic, visual and colored according to priority.

The alarms limits are automatically adjusted according to the changes of set value. The tab illustrates how the automatic alarms are calculated.

It is possible for every parameters to set the limits of the relative alarms, by simply using the touch screen or the encoder.

Parameter	Unit	Lower limit	Upper limit
PIP	cmH_2O	PIP - 5	PIP + 8
PEEP	cmH_2O	PEEP – 3	PEEP + 3
FIO2	%	FIO_2 – 10 not below 20 %	FIO_2 + 10 not above 100 %

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

FLOW SENSORS

G*i*UL*I*A is supplied with two different types of flow sensors. Both are simple differential pressure transducers without any electrical components (pneumotachographs): one for invasive ventilation to calculate tidal volume (two size), and the other for non-invasive ventilation, which comes in 2.5 and 3.5 mm sizes.
The flow sensor for invasive ventilation guarantees a response time of less than 100 ms.

Nasal Flow Sensor

Tracheal Flow Sensor

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

SMART FLOW NIV KIT

To better adapt and be comfortable for the patient, and to assure high accuracy in the readings of the vital parameters of the patient, it has developed a specific non-invasive kit to measure the flow and pressures in the airways.

The new design has been studied to obtain the maximum lightness and comfort for the patient.

The flow sensor is placed between the nasocannula and the patient circuit to minimize the dead space.

GINEVRI

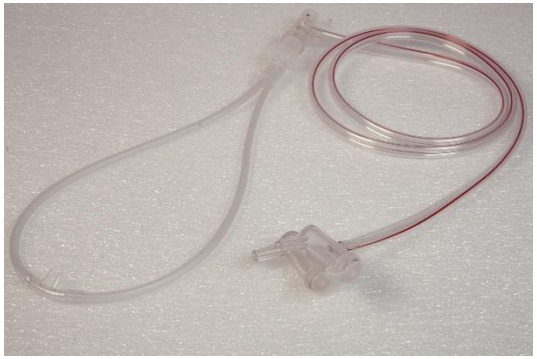
FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

SYNC FLOW-CANNULA

The GINEVRI Sync Flow-Cannula comprises a patient interface (Flow-Cannula, GINEVRI srl) connected to a differential pressure transducer pneumotachograph. This disposable device is designed specifically for treatment of preterm newborns and infants with the G*i*UL*I*A Ventilator.

It has been shown in a scientific study that our new interfaces Sync Flow-Cannula with approximately 30% leaks have an excellent pressure transmission and offer optimal performance for flow-SNIPPV more than other cannula.

(https://pubmed.ncbi.nlm.nih.gov/33169945/)



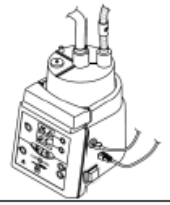
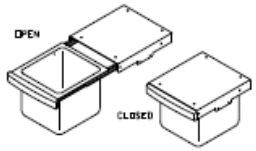
GINEVRI

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

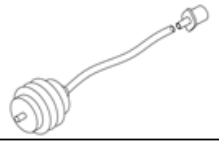
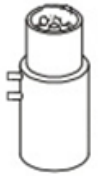
ACCESSORIES AND CONSUMABLES

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

Description	Picture
Wetty Humidifier	
Trolley	
Drawer *(only with trolley)*	
Shelf *(only with trolley)*	
IV pole *(only with trolley)*	

ACCESSORIES:

Description	Picture
Tracheal Test Lung	
Nasal Test Lung	
Type B Tracheal PNT	

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

CONSUMABLES

SMART FLOW NIV KIT

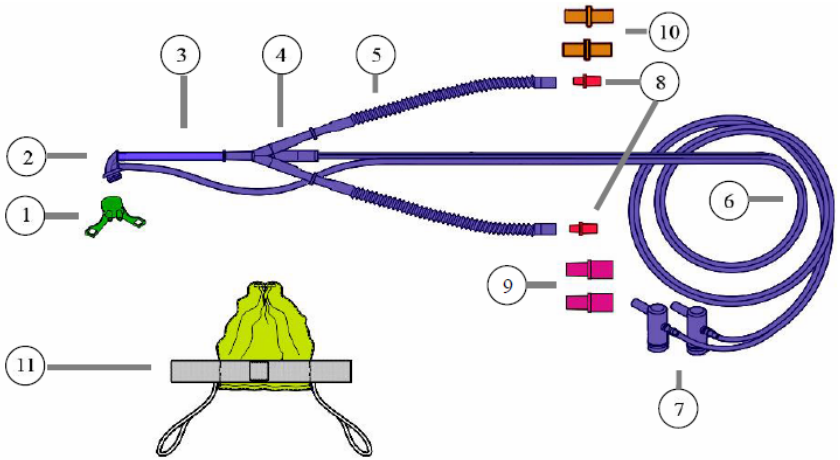
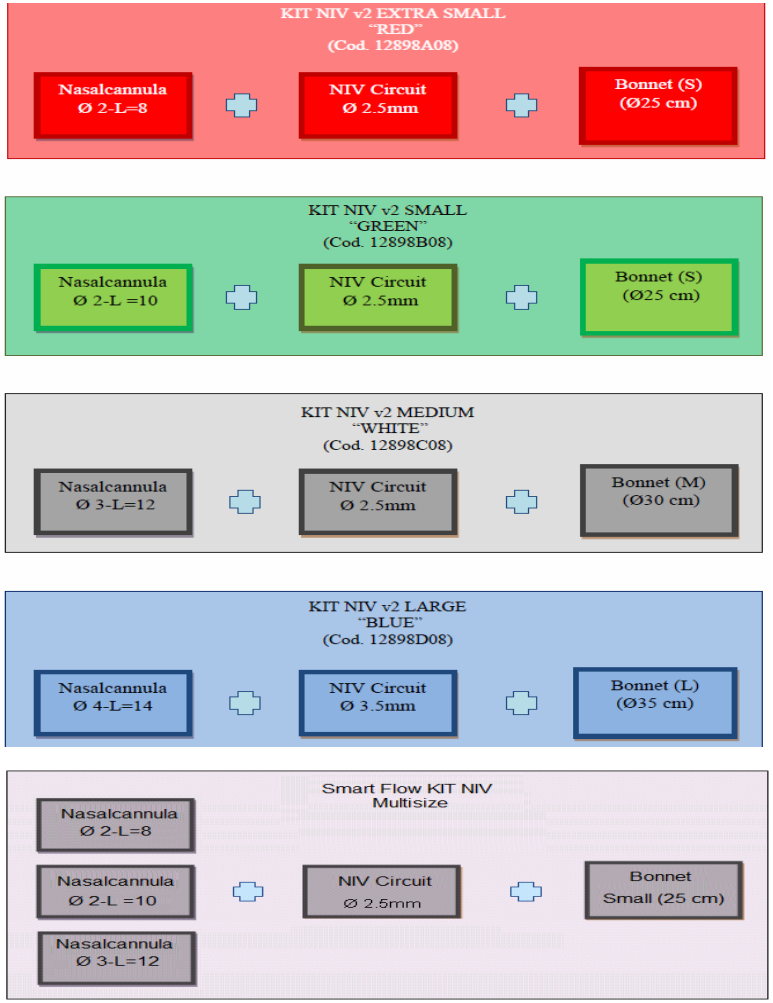


Fig. 7: NIV KIT Components.

The NIV KIT is made of:

1. Nasalcannula
2. Adapter for nasalcannula
3. Colored tube
4. T-piece
5. Flexible corrugated tubes
6. Flow reading double tube
7. Water traps
8. Adaptors for Ginevri humidifier Wetty
9. Adaptors for F&P humidifier
10. Adaptors for other humidifiers
11. Bonnet



FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

CONSUMABLES

Custom NIV Kit

Nasalcannula

- Nasalcannula Ø 2-L=8 (Cod.12251A08)
- or
- Nasalcannula Ø 2-L =10 (Cod. 6968A08)
- or
- Nasalcannula Ø 3-L=12 (Cod. 6969A08)
- or
- Nasalcannula Ø 4-L=14 (Cod. 12205A08)

Bonnet

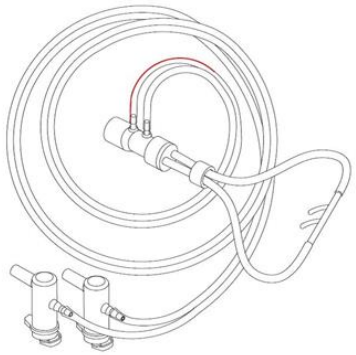
- Small Red Bonnet 25 cm (Cod. 11659A08)
- or
- Small Green Bonnet 25 cm (Cod. 11659B08)
- or
- Medium White Bonnet 30 cm (Cod. 11659C08)
- or
- Big Blue Bonnet 35 cm (Cod. 11659D08)

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

CONSUMABLES

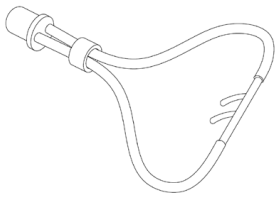
Sync Flow-Cannula



The Sync Flow-Cannula KIT is sold in four different sizes to fit all patients needs:

Sync Flow-Cannula XXS	(Cod. 13226A73)
Sync Flow-Cannula XS	(Cod. 13226B73)
Sync Flow-Cannula S	(Cod. 13226C73)
Sync Flow-Cannula M	(Cod. 13226D73)

Flow-Cannula



Every nasal cannula “Flow-Cannula” can be purchased separately by the flow sensor in each of its sizes:

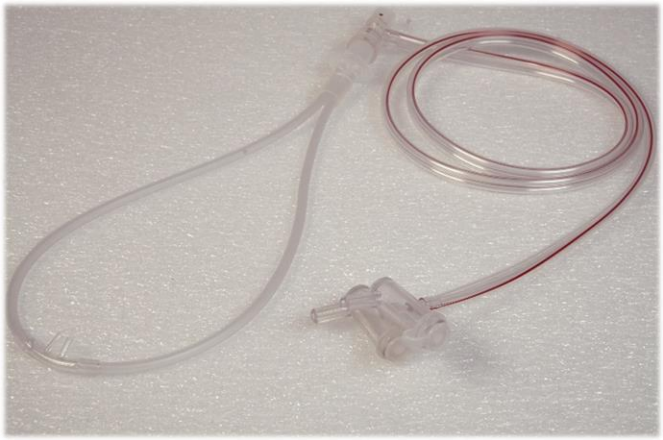
Flow-Cannula XXS	(Cod. 13230A73)
Flow-Cannula XS	(Cod. 13230B73)
Flow-Cannula S	(Cod. 13230C73)
Flow-Cannula M	(Cod. 13230D73)

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

CONSUMABLES

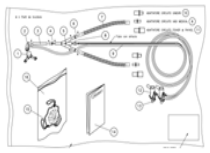
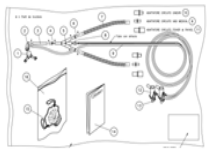
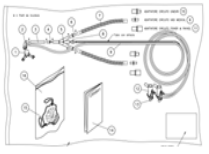
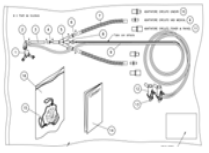
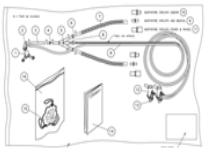
Sync Flow-Cannula



FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

CONSUMABLES (1):

Description	Picture
SMART FLOW KIT NIV Extra Small "Red" *(Nasalcannula Ø2-L8 mm* *+ PNT Ø2.5 mm* *+ Bonnet Ø25 cm)*	
SMART FLOW KIT NIV Small "Green" *(Nasalcannula Ø2-L10 mm* *+ PNT Ø2.5 mm* *+ Bonnet Ø25 cm)*	
SMART FLOW KIT NIV Medium "White" *(Nasalcannula Ø3-L12 mm* *+ PNT Ø2.5 mm* *+ Bonnet Ø30 cm)*	
SMART FLOW KIT NIV Large "Blue" *(Nasalcannula Ø4-L14 mm* *+ PNT Ø3.5 mm* *+ Bonnet Ø35 cm)*	
SMART FLOW KIT NIV Multisize *(Nasalcannula Ø2-L8 mm* *+ Nasalcannula Ø3-L12 mm* *+ Nasalcannula Ø4-L14 mm* *+ PNT Ø2.5 mm* *+ Bonnet Ø25 cm)*	

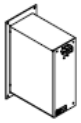
Description	Picture
SYNC-FLOW CANNULA Size XXS	
SYNC-FLOW CANNULA Size XS	
SYNC-FLOW CANNULA Size S	
SYNC-FLOW CANNULA Size M	
FLOW CANNULA Size XXS	
FLOW CANNULA Size XS	
FLOW CANNULA Size S	
FLOW CANNULA Size M	

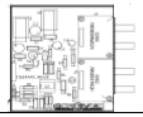
Description	Picture
KIT NIV NF *(PNT Ø3 mm* *For nasopharyngeal tube)*	
Double Tube *(with 2 water traps for tracheal PNT)*	
CPAP Nasal Cannula Ø 2-L8 mm	
CPAP Nasal Cannula Ø 2-L10 mm	
CPAP Nasal Cannula Ø 3-L12 mm	
CPAP Nasal Cannula Ø 4-L14 mm	

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

GINEVRI

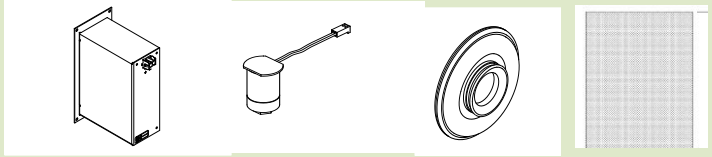
CONSUMABLES (2):

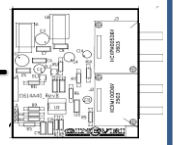
Description	Picture
CPAP Nasal Cannula Ø 4-L14 mm	
YELLOW Bonnet for nCPAP/NIV size XXS (baby head circumference 22 cm)	
RED Bonnet for nCPAP/NIV size XS (baby head circumference 24 cm)	
GREEN Bonnet for nCPAP/NIV size S (baby head circumference 27 cm)	
WHITE Bonnet for nCPAP/NIV size M (baby head circumference 30 cm)	
BLUE Bonnet for nCPAP/NIV size L (baby head circumference 35 cm)	
VIOLET Bonnet for nCPAP/NIV size XL (baby head circumference 40 cm)	
Battery Pack	
Oxygen Sensor	

Description	Picture
Expiratory membrane	
Sensor Board	
Anti Dust Filter 160x151x10 mm	

Service Kit 6 months / 1 Year	
Service Kit 2 Years/ 3 Years	
BACTERIAL FILTER FOR GIULIA PATIENT CIRCUIT WITH ADAPTER	

Yearly KIT for SEMESTRAL check:
Battery pack + Oxygen Sensor + Expiratoty membrane + Anti Dust Filter



+ 

3 Yearly KIT:
Battery pack + Oxygen Sensor + Expiratoty membrane + Anti Dust Filter + Sensor Board

GINEVRI

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

MAINTENANCE, REPAIR AND OPERATIONS

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

PREVENTIVE MAINTENANCE:

In the interests of the patient safety it is recommended to proceed to the maintenance of the G*i*UL*I*A ventilator every six months.
During the maintenance only original GINEVRI srl spare parts must be used.
Assuming a maximum use of 3.000 hours/year, the duration of the accumulator, of the oxygen sensor, the expiratory membrane and the anti dust filter of the G*i*UL*I*A is of 1 year; the sensor board must be changed maximum every 3 years.

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

WETTY ACCESSORY

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

WETTY HUMIDIFIER

- It has been designed for neonatal and pediatric use. It is characterized by high technology, ease of use and maintenance.
- The servo controlled WETTY is designed to humidify and heat up the gas inside the patient circuit.
- G*i*UL*I*A is compatible with all the humidifiers. Anyway, the use of Wetty assures the minimum level of condensation possible in the patient circuit.

WETTY HUMIDIFIER Auto and Manual mode

Pressing the "**Auto**" key enables the automatic mode and an led besides the key indicates that the mode is active, while a second led indicates if it is the "Automatic–Invasive" or "Automatic–Non Invasive" to be active.
To switch between the two, press the "Auto" key.
When turning on the device, the preset mode is the "**Automatic–Non Invasive**". Moreover, switching from Manual mode to Automatic, the system will activate the "**Automatic–Non Invasive**" mode by default.

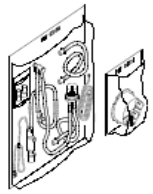
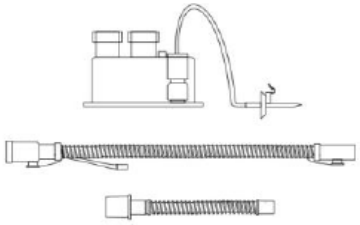
Automatic Mode	Invasive	Non Invasive
Y piece temperature	38 °C	36 °C
Humidity Level	4	4

When the "**Manual**" key is pressed, the manual mode is selected and the led beside the relative key is activated. In this mode it is possible to select the air temperature at the Y-piece and the desired humidity level.
In the following Tab the values of humidity and air temperature at the Y piece in the two different modalities are summarized:

Manual Mode	Min	Typical	Max
Y piece temperature	23.0 °C	37.0 °C	38.0 °C
Humidity Level	0	3-4	5

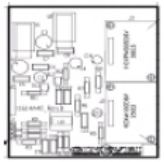
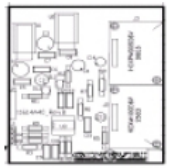
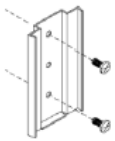
GINEVRI

WETTY HUMIDIFIER Consumable

Description	Picture
WETTY Humidifier Patient Circuit (2 ways)	
Humidifier Patient Circuit (1 way)	
Connection 15x5	

GINEVRI

WETTY HUMIDIFIER Spare parts

Descrizione	Immagine
Temperature sensor WETTY	
Powerboard WETTY	
PCB control	
Support (for trolley)	
Support (for WETTY)	

GINEVRI

FLOW-SYNCHRONIZED NASAL VENTILATOR GIULIA FOR IV/NIV VENTILATION

THANK YOU

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