

# Option Unit for DS-7200 System Bedside Monitor MGU-722 Microstream® CO<sub>2</sub> Unit

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Printed in Japan 4L0100670 200802

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- Thank you for purchasing this product.
- Before using this device, read this User's Guide and DS-7200 Operation Manual thoroughly.
- Store this "User's Guide" near the device where it can be always referred.

CE 0086

This unit conforms with the provisions of Medical Device Directive 93/42/EEC in connecting with the Fukuda Denshi monitoring equipment, labeled "CE0086".

THE PERSONS RESPONSIBLE FOR PLACING DEVICES ON THE EC MARKET UNDER MDD 93/42/EEC

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For procedure of the sampling line connection and monitoring setup, refer to the operation manual for the DS-7200 System Bedside Monitor.

## Safety Precautions

Be sure to follow the precautions given below. These are important matters related to safety. Indications and their meanings are as follows:

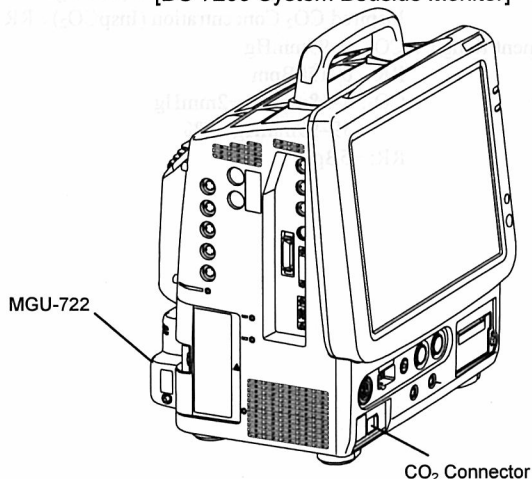
<b>WARNING</b>	Failure to follow this message may result in death or serious injury, or complete failure of the equipment.
<b>CAUTION</b>	Failure to follow this message may cause injury or failure to the equipment.
<b>NOTE</b>	A note is not related to product safety, but provides information about the correct use and operating procedures to prevent incorrect operation and malfunction of the equipment.

## General Description

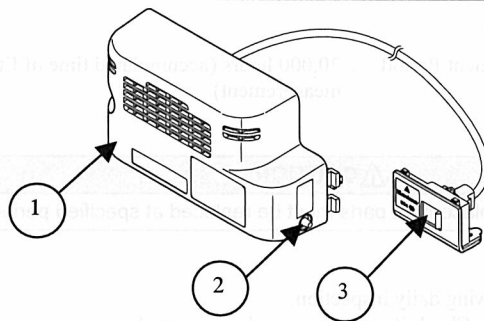
The MGU-722 is a Microstream® CO<sub>2</sub> unit for the DS-7200 Bedside Monitor for monitoring the CO<sub>2</sub> concentration. It is used by attaching to the rear of the DS-7200 Bedside Monitor.

The MGU-722 utilizes the Microstream® technology of Oridion.

[DS-7200 System Bedside Monitor]



## Names of Parts and Their Functions



	Name	Function
1	Main Unit	Main unit to measure the CO <sub>2</sub> concentration.
2	Exhaust Connector	Connects the gas exhaust device and exhausts the sampling gas.
3	CO <sub>2</sub> Connector	Connects the filter line or nasal filter.

## Connection to the Bedside Monitor

### WARNING

The installation of this product will be performed by our service representative. The users should not attempt the procedure as electric shock or malfunction may be caused.

## CO<sub>2</sub> Calibration

CO<sub>2</sub> calibration is performed using the calibration gas. Conduct CO<sub>2</sub> calibration for the following case.

- When 1 year has elapsed from the last calibration.
- After 4000 hours of usage.
- When EtCO<sub>2</sub> measurement is not stable or accuracy is degraded compared with other measuring device.
- When the patient monitor was not used for a while, or when EtCO<sub>2</sub> was not measured for a while.
- When a message, "Calibrate the CO<sub>2</sub> unit (MGU-722)" or "The periodic calibration of the CO<sub>2</sub> unit (MGU-722) is approaching" is displayed at power ON.

For calibration procedure, refer to the operation manual for the DS-7200 System Bedside Monitor.

### CAUTION

- Perform calibration after 20 minutes has elapsed since the power is turned ON.
- Do not disconnect the sampling line during calibration. Calibration will cease when the sampling line is disconnected.

## Maintenance

### Cleaning the Housing

Clean the housing and cable using tightly squeezed gauze or an absorbent cotton cloth dampened with alcohol or a neutral cleanser.

#### CAUTION

- Clean the equipment frequently so stains can be removed easily.
- To prevent injury, it is recommended to wear gloves when cleaning the equipment.
- Do not allow liquids or cleaning solution to enter the monitor or connectors.
- Do not use organic solvents, thinner, toluene and benzene to avoid damaging the resin case.
- Do not polish the housing with abrasive or chemical cleaner.
- When sterilizing the entire room using a spray solution, pay close attention not to have liquids get into the monitor or connectors.
- Use only neutral detergent to clean the housing. Do not use chemical cloth, scrub brush, abrasive, polishing powder, hot water, volatile solvent and chemicals (cleanser, thinner, benzene, benzol, and synthetic detergent for house and furniture), or sharp-edged tools. The surface resin coating may be damaged, resulting in discoloration, scratches, and other problems.

### Periodic Replacement

To ensure reliability of safety, function, and performance of this device, it must be replaced periodically. When replacing, contact our service representative.

Periodic Replacement Period : 20,000 hours (accumulated time of EtCO<sub>2</sub> measurement)

#### CAUTION

The periodic replacement parts must be replaced at specified period.

### Daily Check

Perform the following daily inspection.

For Each Patient : Check if cable is properly connected.  
Replace the sampling line.

CO<sub>2</sub> Calibration : Check the date of previous calibration date. It should be within 1 year.

### Periodic Check

The safety check conformed to IEC 60601-1 must be performed at least once a year for this equipment. Periodic inspection of medical electronic equipment is mandatory to prevent failures and accidents and to ensure safety and reliability. Periodic maintenance may be performed by each medical institution or by a third party by concluding a "Maintenance Contract". For more details, contact your nearest service representative.

#### NOTE

If any damage is found on this device, contact our service representative.

## Troubleshooting

For troubleshooting of this device, refer to the operation manual for the DS-7200 System Bedside Monitor.

## Accessories/Optional Accessories

### Accessories

To ensure product quality, use the specified accessories.

No.	Item	Quantity
1	This User's Guide	1

### Optional Accessories

The following products are available as optional accessories. Purchase them as required.

No.	Item
1	CapnoLine H /O <sub>2</sub> (Adult) 008180
2	CapnoLine H /O <sub>2</sub> (Pediatric) 008181
3	FilterLine H Set (Adult/Pediatric) XS04624
4	FilterLine H Set (Infant/Neonate) 006324
5	CapnoLine H (Adult) 008177
6	CapnoLine H (Pediatric) 008178
7	CapnoLine H (Infant/Neonate) 008179
8	Smart CapnoLine Plus (Adult/Intermediate) 009818
9	Smart CapnoLine (Pediatric) 007266
10	Smart CapnoLine Plus O <sub>2</sub> (Adult/Intermediate) 009822
11	Calibration Kit (5% CO <sub>2</sub> , 21%O <sub>2</sub> ) 03046530RFB
12	Calibration Kit (5% CO <sub>2</sub> , 21%O <sub>2</sub> ) GR08081

## Specification

### Size/Weight

141.5 (W) × 41 (D) × 79 (H) mm \*not including the protrusion  
260g ± 50 g

### Environmental Condition

Operating Temperature : 10–40°C  
Operating Humidity : 30–85%(non-condensing)  
Transport/Storage Temperature : –10–60°C  
Transport/Storage Humidity : 10–95% (non-condensing)

### Power Requirement

Max. 5.0W (5V/12V supplied from patient monitor.)

### Performance

Method : Infra-Red Solid-State, Sidestream  
Parameter : End-Tidal CO<sub>2</sub> Concentration (EtCO<sub>2</sub>) / Inspired CO<sub>2</sub> Concentration (InspCO<sub>2</sub>) / RR  
Measurement Range : CO<sub>2</sub> 0–99mmHg  
RR 0–150Bpm  
Accuracy : CO<sub>2</sub>: 0–38mmHg ±2mmHg  
39–99mmHg ±5%  
RR: ±5Bpm