User Manual – Turning System



# **Turning System**

# Low Air Loss/Turning Pressure Relief System

**User Manual** 



Distributed by: Quart Healthcare Inc. www.quarthealthcare.com

#### User Manual – Turning System



### Warning

- Connect the Master Control unit to an appropriate power source
- Do not use the system in the presence of any flammable gases (such as anesthetic agents)
- Keep the pump and mattress away from sources of liquid and open flames
- Keep mattress away from sharp objects
- The device is not AP/APG protected
- Keep mattress system away from heating devices

### Caution

- Consult clinical instructor before use of mattress
- Support surfaces should always be used in conjunction with a care plan that includes the turning/repositioning of the patient over a 24-hour period
- The control unit should only be repaired by an authorized distributor
- Do not drop the control unit or store it in direct sunlight or extreme cold conditions

### 1. Product Description

The Turning System is a unique and innovative specialized mattress replacement unit. The system utilizes true low air loss technology with a high flow rate to provide pressure management for the treatment of pressure ulcers. The Turning System also features optional continuous lateral rotation therapy in two ranges of rotation angle (20 and 40 degrees). This gently turns the patient, significantly lowering the risk of infection, pneumonia and other pulmonary complications by promoting fluid drainage from the lungs. Through 8-digital scales, the Soft-Firm adjustment optimizes immersion and allows the patient to adjust the firmness of the surface for maximum comfort. In addition, the lateral side bolsters and 2 inches of enclosed convoluted foam provide extra protection and comfort.

#### **Control Unit Features (pump)**

- User-friendly design.
- Rotation angle can be independently selected for 20 degrees or 40 degrees.
- Rotation time can be adjusted from 5 min to 95 min. or the caregiver can select the Static Function, which will stop the Rotation Function and provide only true low air loss therapy.
- Auto-Firm Function provides uniform firmness for nursing procedures.
- Power failure alarm for added safety. (Alarm can be reset by pushing the ALARM RESET button on the front panel of the control unit).
- 8 digital scales of Soft-Firm comfort control.
- Double insulation provides maximum silent operation.
- Foot board mounting rack provides convenient placement on bed.



#### **Master Control Unit**

Part No	FC-QHI0089
Device Identifier (Health Canada)	FC-CRP0089
Size (cm)	42(L)x17 (W)x27(H)
Weight (Kg)	6.1
Phase Time	5 ~ 95
Rated Voltage	110~120 volt
Max Current	4.8 Amp
Rated Frequency	60 Hz
Protection Type	Class II, Type BF
Mode of Operation	Continuous
Safety Standard	UL/CSA

Mattress Replacement Features

- Individual air cushion design for maximum pressure distribution.
- Air cells are vented to provide true low air loss therapy with a high flow rate.
- Individual air cushion design for maximum pressure distribution.
- Permanently inflated bed rails for added safety.
- Contoured top cover facilitates patient centering and leg abduction.

#### **Mattress Replacement Features**

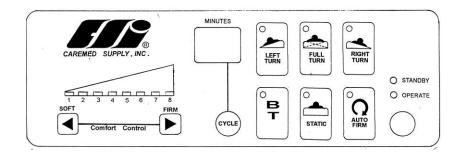
Model No	FM-QHI0004			
Device Identifier (Health Canada)	FM-CRP0004			
Size (cm)	89(W)x203(L)x24(H)			
Weight (Kg)	15 Kg			
Cells Material	Nylon w/ PU backing			
Cover Type	Zipper cover with removable foam base			
Cover Material	Nylon knitted fabric w/ PU coating finish			
Base Material	Woven Polyester fabric w/ PVC backing			

### 2. Instructions For Use

- Remove the existing mattress from the bed frame.
- Replace standard mattress with Turning Mattress Replacement, ensuring that mattress is oriented with air tube at the foot of the bed.
- Secure straps beneath the mattress to the bed frame.
- Hang the Master Control Unit on the footboard of the bed frame.
- Attach air tube connectors to socket on the left panel of the Master Control Unit, taking care to colour match connectors.
- Ensure the air hoses are not kinked under the mattress.
- Carefully plug power cord into a properly grounded power source.
- Turn on master mechanical power switch on the right side panel.
- Push the STANDBY/OPERATE button on the front panel. The OPERATE LED will now be illuminated.
- Push the AUTO FIRM button for fast inflation. Allow 4-7 minutes for full inflation.



- After the mattress is fully inflated, the caregiver can transfer the patient onto the mattress.
- Push AUTO FIRM again to release the Fast Inflation mode.



**Static Function**: Push the STATIC button and adjust the comfort control by pressing the SOFT/FIRM button to achieve maximum patient comfort. On this mode the system provides only true low air loss therapy. Perform a hand check by placing hand under the patient's heaviest point, between the cells and foam. The patient should have at least 4 cm. of clearance. If the STATIC function is selected the time display will remain blank.

CPR Deflation: For quick mattress deflation disconnect the hose connectors from the control unit.

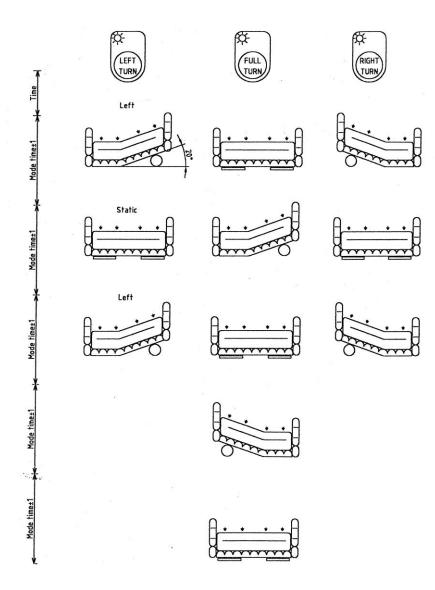
- Dwell time (turning time) can be adjusted by the CYCLE button. Cycle times range from 5 min. to 95 min. in increments of 5 min.
- The Master Control Unit is equipped with a power failure alarm. The alarm can be reset by pushing the ALARM RESET button on the front panel.

ALARM RESET		
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#### 20-Degree Turn:

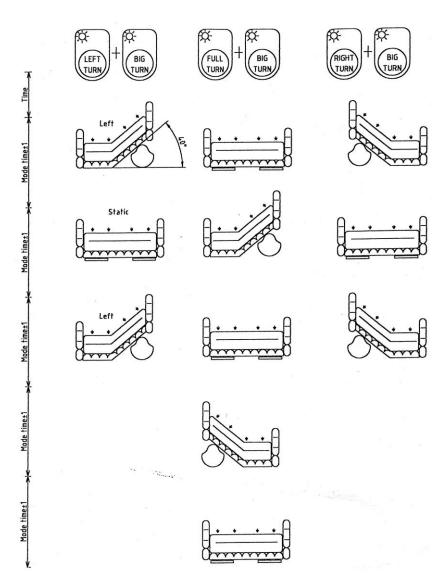
When the LEFT TURN button is pressed the mattress will only turn to the left and back to horizontal. When the RIGHT TURN button is pressed the mattress will only turn to the right and back to horizontal. When the FULL TURN button is pressed the mattress will turn to the right, back to horizontal, to the left and back to horizontal.





### 40-Degree Turn (BT)

Press the BIG TURN (**BT**) button for a 40-degree turn of the mattress. The turning functions for the 40-degree turn follow the same pattern as those of the 20-degree turn.





## 3. Cleaning

The mattress should be cleaned on the bed weekly using a damp soft cloth and mild detergent. If the top or bottom cover becomes severely soiled, remove, clean as follows, and replace with a clean cover. Covers can be washed and thermally disinfected in a washing machine. Cover should not be put into a dryer. (Never use phenol-based cleaning solutions)

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#### TUMBLE DRYING OR TUNNEL DRYING IS NOT RECOMMENDED

Mattress cells can be wiped with a solution of sodium hypochlorite 1000ppm or any other non-phenolic germicidal solution.

Note: The control unit should also be cleaned weekly using a damp soft cloth and mild detergent (Switch off the electrical supply to the pump and disconnect the power cord from the main supply before cleaning and inspection).

**The Pump**: The casing of the control unit is manufactured from ABS plastic. If the control unit is soiled it can be wiped down with a sodium hypochlorite solution to dilution of 1000ppm or any EPA-approved, hospital-grade disinfectant. **(Do not use phenol based cleaning solutions)** 

#### Cleaning procedure for air filter

- 1. Air Filter is located at the back of the control unit, inside the carry handle. No tools are required to remove it. Air Filter must be removed for inspection at least once a month and washed under running tap water if necessary. Squeeze to remove excess water before reinstalling it.
- 2. Use a soft brush to remove dust and debris from the air-intake muffler prior to reinstalling the filter.
- 3. New filters are also available.

#### (Do not use phenol based cleaning solutions)



### 4. Storage and Care

#### **Control Unit:**

- Check the power cord and plug for abrasions and excessive wear
- Plug in the unit and verify air flow from the hose connection ports
- Place in plastic bag for storage

#### Mattress Replacement System

- Check the air manifold for kinks or breaks. Replace if necessary.
- Twist open the CPR plug at the head of the mattress and disconnect the air feed tubes. All of the air will be expelled. Starting at the head of the mattress roll towards the foot of the bed. Use the base mounted straps to secure.

It is recommended that the following guidelines are used whenever the system is being stored or transported to another location:

Temperature limitations -10C to 40C Relative humidity 30% to 95%

### 5. Maintenance and Troubleshooting

No daily maintenance is required. This equipment should only be serviced by authorized technical personnel. In case of minor problems refer to the following:

	Inspection Procedure	Possible Solution
Symptom		
	<ol> <li>Is the power source correct? Improper voltage may cause the pump to function abnormally and damage the control unit.</li> <li>Do the air tubes allow smooth airflow? Is an air tube kinked?</li> <li>Is there any air leakage from the air cells?</li> <li>Is there any air leakage from air tube between mattress and control unit?</li> <li>Has the air tube connector been connected properly?</li> </ol>	<ol> <li>Use power regulator.</li> <li>Adjust the air tubes to enable smooth air flow.</li> <li>Replace with new air cells</li> <li>Replace with new air tubes</li> <li>Re-connect the air tubes.</li> </ol>
The Control Unit is not working	<ol> <li>Check the power cord and the power voltage.</li> <li>Check the fuse</li> </ol>	<ol> <li>Use a power regulator</li> <li>Replace with a new fuse</li> </ol>
Some air cells have abnormal low air pressure while the air pressure for other air cells is normal	<ol> <li>Is the connection between air cells and the manifold kinked?</li> <li>Is there any air leakage from the air cells?</li> </ol>	1Adjust the connection between cells and manifold 2. Replace with a new air cell.



### 6. Warranty

- Quart Healthcare Inc. warrants that this equipment is free from defects in materials and workmanship. Our obligation under this warranty is limited to the repair of equipment returned to the place of purchase within 24 months of delivery date.
- We agree to service/adjust any equipment returned, and to replace or repair any part that is proven to be a warranty defect, at no charge.
- This warranty excludes equipment damage through shipping, tampering, improper maintenance, carelessness, accident, negligence or misuse, or products that have been altered, repaired or dismantled other than with the manufacturer's written authorization and by its approved procedures and by properly qualified technicians.
- In no event shall Quart Healthcare Inc. be liable for any direct, indirect or consequential damages or losses resulting from the use of equipment.