

USER'S MANUAL

CEMAR ELECTRO INC.

Cemarligne® CL 600

Patient Positioning System

CL 606-CH Green Laser

CL 610-CH Red Laser

Installation and Usage Guide



Disclaimer

Cemar Electro Inc. products are warranted in accordance with the terms of the applicable Cemar Electro Inc. product specification. Product performance is affected by system configuration, the application, and operator control of the system, among other factors. While Cemar Electro Inc. products are compatible with standards for which they are advertised, implementation of the product by customers may vary.

Therefore, the suitability of the product for a specific application must be determined by the customer, and is not warranted by Cemar Electro Inc.

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Warranty

The CL 600 system is warranted to be free of manufacturing defects for 18 months from the date of purchase. All parts and labor are covered by this warranty.



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Principle of Operation

The purpose of the Cemarligne® CL 606-CH and CL 610-CH Patient Positioning Systems is to align patients relative to medical radiology devices, and any other medical application where a crosshair is used.

Laser Safety

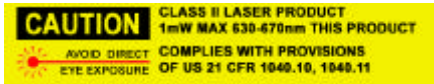
The **CL 606-CH** is a Class II Laser Device projecting a 532 nm Green laser beam.

The **CL 610-CH** is a Class II Laser Device projecting a 670 nm Red laser beam.

Never stare directly into the beam of any operating laser with or without optical instruments.

If your Cemarligne laser is malfunctioning, disconnect its power supply, and contact Cemar Electro to arrange for repair by authorized service technicians, any unauthorized repair voids all warranties.

To learn more about laser safety, please browse our online laser safety library:
www.cemarelectro.com/safety



Important Information

Operating Temperatures

Both the CL 606-CH and CL 610-CH operate between 50°F and 86°F (10°C and 30°C).

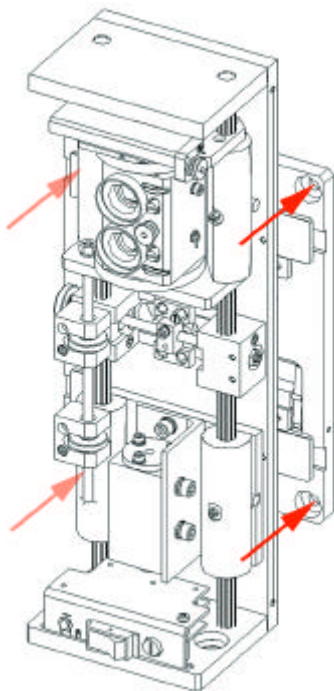
A built-in sensor prevents these devices from operating outside the temperature range. This is a safety feature designed to extend the life of your laser by preventing damage to the diode at high temperatures.

The red LED indicator on the system's power supply may flash during start up while the system checks the temperature.



Mounting CL 600 Series Systems

The CL 600 is mounted to the wall with the built-on mounting plate and M6 or ¼-20 mounting bolts (not supplied).



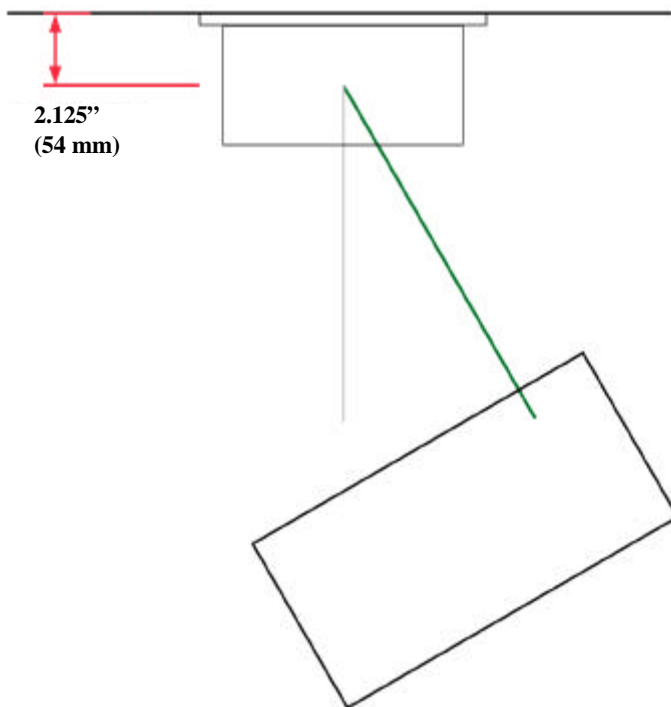
For convenience, a template of the mounting plate is included with the CL 600 system.



Special Mounting Instructions

When aiming the CL 600 at an angle other than 90° (to the wall), it is important to take into consideration its position based on the laser pivot point as the center of the device.

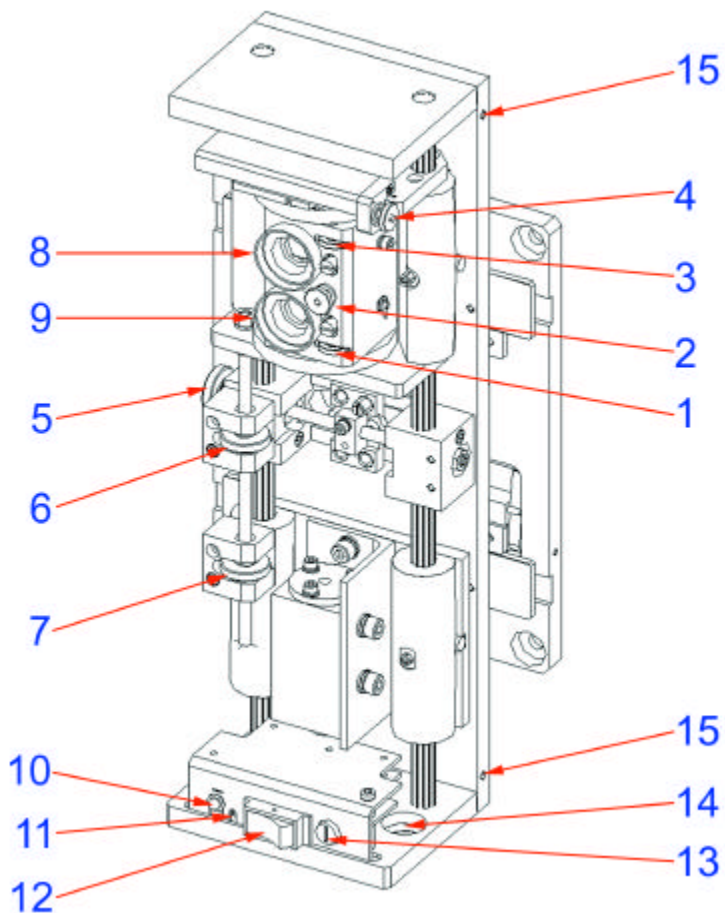
The center of the laser pivot axis is 2.125" (54 mm) from the wall.



NOTE: drawing not to scale.



Features and Functions



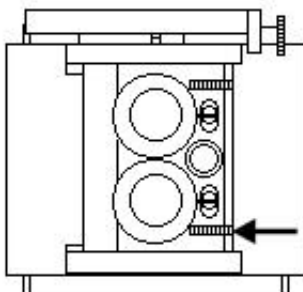
Features List

1. Horizontal Beam - Roll Adjustment - Knob 1
2. Horizontal Beam - Pitch Adjustment - Knob 2
3. Vertical Beam - Roll Adjustment - Knob 3
4. Crosshair - Yaw Adjustment - Knob 4
5. Horizontal Positioning of Crosshair - Knob 5
6. Vertical Positioning of Crosshair - Knob 6
7. Focus - Knob 7
8. Vertical Beam Aperture
9. Horizontal Beam Aperture
10. Power Indicator LED
11. Optical Power Adjustment
12. Power Switch
13. Fuse (1 amp fast blow)
14. DC Power Supply Connection
15. Cover Mounting Points (two on each side)



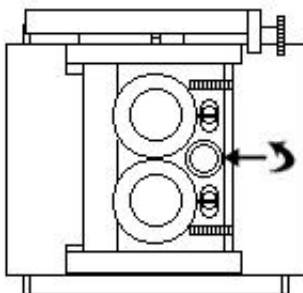
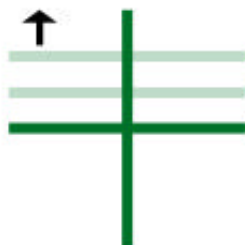
Horizontal Beam - Roll Adjustment - Knob 1

Adjust the angle of the horizontal line.



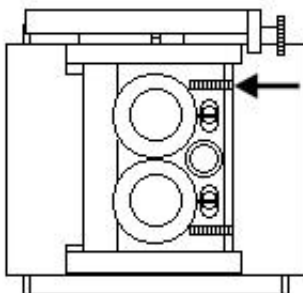
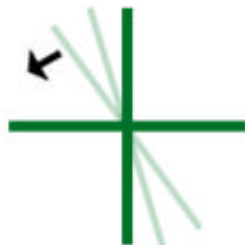
Horizontal Beam - Pitch Adjustment - Knob 2

Tilt the projection angle of the horizontal line.



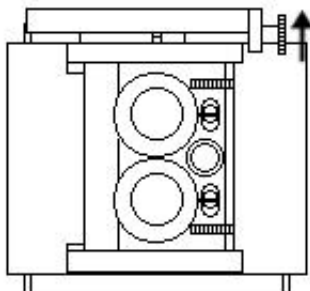
Vertical Beam - Roll Adjustment - Knob 3

Adjust the angle of the vertical line.



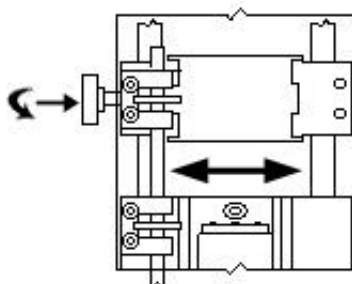
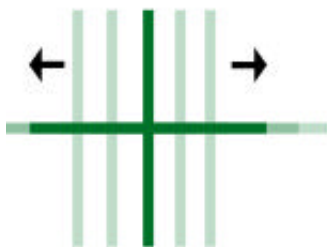
Crosshair - Yaw Adjustment - Knob 4

Rotate the crosshair left or right.



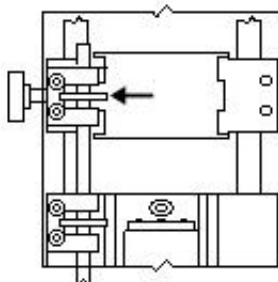
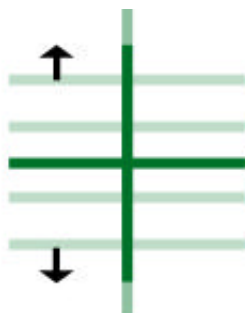
Horizontal Positioning of Unit - Knob 5

Move the entire unit left or right.



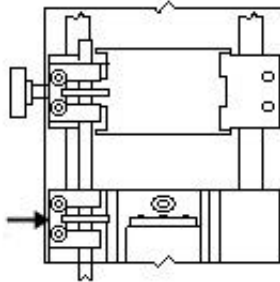
Vertical Positioning of Crosshair - Knob 6

Move the crosshair up or down.



Focusing the Crosshair - Knob 7

Focus the crosshair from 3 ft to infinity (0.75 m to infinity).



The Power Indicator LED

During normal operation the LED will be lit. A continuously flashing LED indicates a problem. If the LED flashes, turn off the system and contact a Cemar Electro Inc. for assistance.

Optical Power Adjustment

The output power of the CL 600 system is factory set. To increase or decrease output power, turn the potentiometer (item 11, see page 10).

Fuse

The laser is protected by a 1 Amp. fast blow fuse (Littlefuse).

Cleaning and Maintenance

To remove dust from the system, remove the cover and use a low-pressure air blast. To clean the lenses, use a mild glass cleaner and a soft dust-free cloth.

Note: Avoid contact with the mirrors. If they need cleaning, contact Cemar Electro Inc. for instructions.



Service

Please contact the Cemar Electro Inc. office nearest you:

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Unit Specifications

Electrical Specifications	CL 606-CH (Green)	CL 610-CH (Red)
Output Power	<1.0 mW per line	
Laser Type	Diode pumped solid state	Laser Diode
Wavelength	532 nm	635 to 670 nm
Beam Color	Green	Red
Focusing Distance	3 ft. (0.75 m) to infinity.	
Line Size at 6 ft (2 m)		
Thickness	0.02 in. (0.5 mm)	
Length	1.5 ft. to 10 ft. (0.5 to 3.0 m)	
Drift	No measurable drift.	
Operating Voltage (laser module)	5 VDC	5 VDC
Operating temperature	50° to 86°F +10°C to +30°C	
AC Power Requirements	90 - 240 VAC 50/60 Hz	
Power Consumption	5.0 Watts	0.7 Watts
Approvals	CSA, UL, CE	
Regulations	Complies with CDRH Regulations, Class II Laser Device.	

Mechanical Specifications	
Pitch Adjustment Range	+/- 5°
Roll Adjustment Range	+/- 5°
Yaw Adjustment Range	+/- 45°
Vertical Adjustment Range (at 1.5 m)	+/- 13 mm
Horizontal Adjustment Range (at 1.5 m)	+/- 13 mm
Isocenter Adjustment Accuracy	0.1 mm
Overall Dimensions	
Width	6 in. (152.4 mm)
Height	12.8 in. (324.8 mm)
Depth	3.5 in. (88.9 mm)
Weight	7.7 lbs (3.5 kg)



Notes



Notes



