



# The New Century Perfusion System

Designed for perfusionists,  
by perfusionists

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## Extreme Reliability

Rugged heavy-duty construction  
for lasting durability

## Exceptional Ease of Use

Simple design, master in an hour  
or less

## Total Cost of Ownership

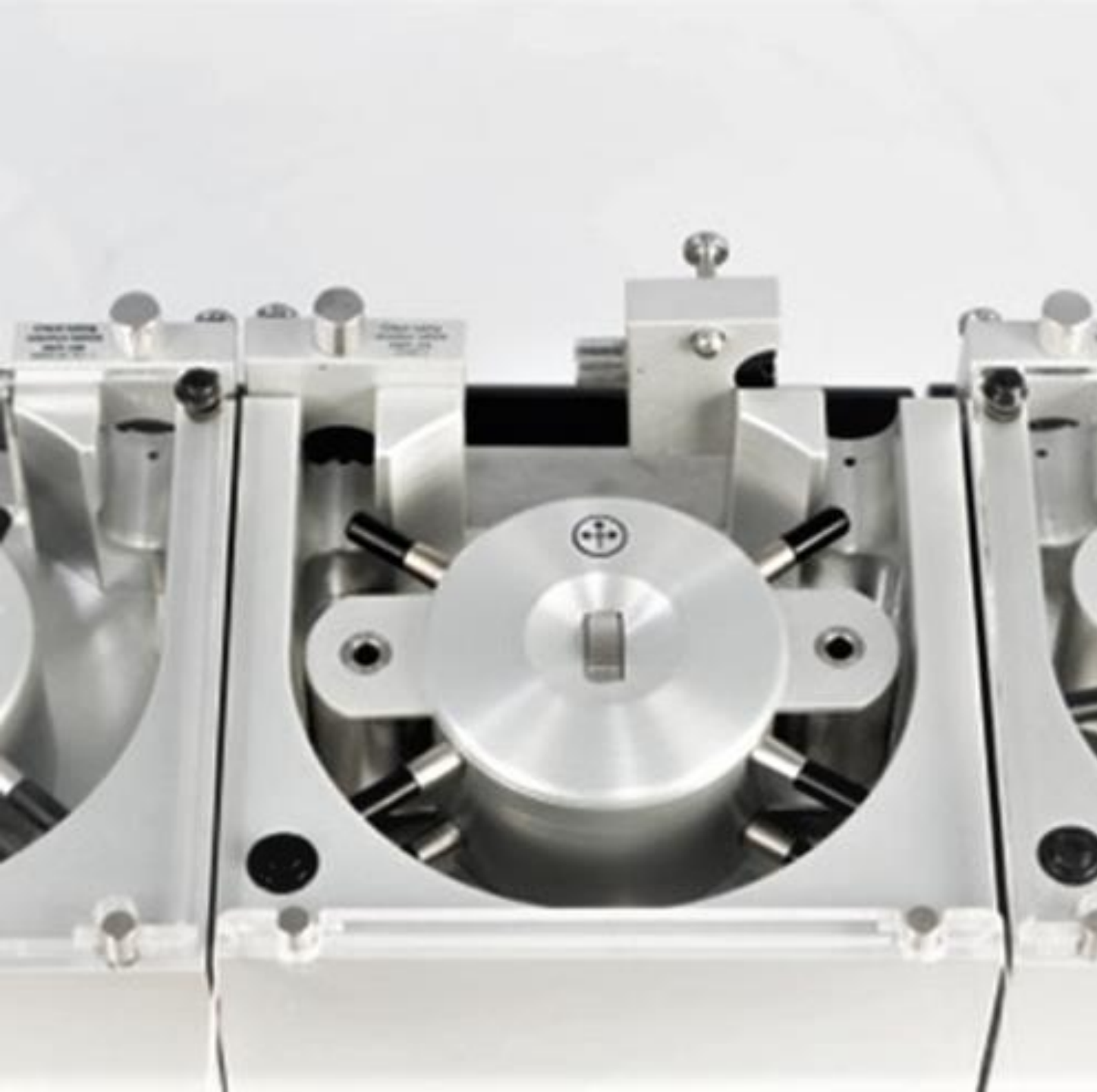
Affordable, long lasting, the  
“*Workhorse Pump*”



# The Century Perfusion Pump

- The only completely independent perfusion roller pump
- Plug into any wall outlet (HIPEC, Limb perfusion, etc.)
- Two stage Coarse and Fine control speed dial with a defined stop
- Easily accommodates two 1/4" tubings in one roller head





# Stöckert Perfusion Pump Heads

- The Gold Standard in perfusion roller heads
  - Laser manufacturing for exceptional accuracy
  - Century Pump traded-in after 20 years with 98,926 hours of use – still within specifications!
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# Century Raceway Symmetry

## The other half of occlusion accuracy

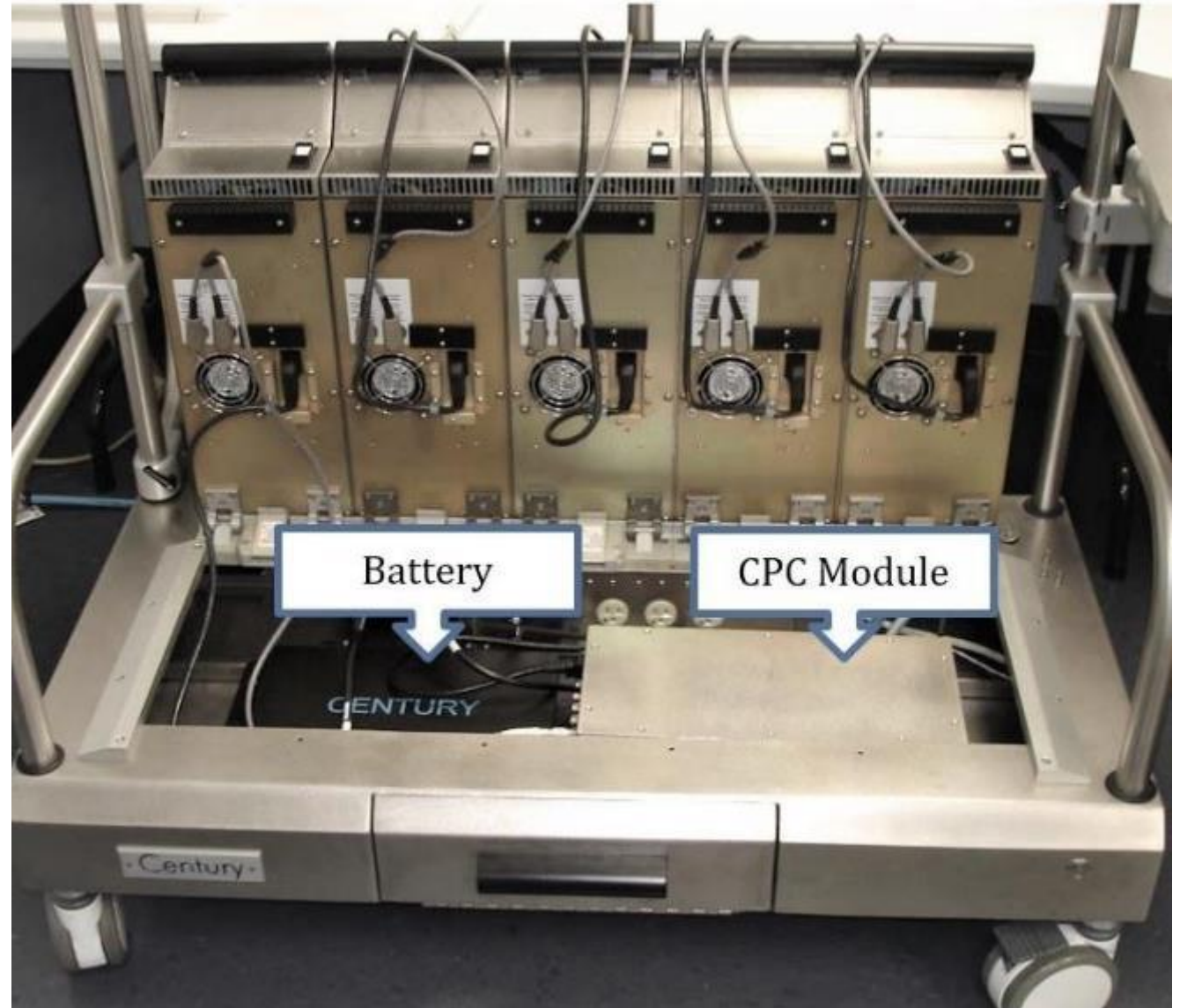
- Century Pump raceways are cut from a single block of aluminum for stability and accuracy
- Century roller heads and raceways fabricated by USA aerospace contractor using laser manufacturing techniques
- Our one-piece raceway design has extra thick walls that do not warp over the life of the pump...no more “low spots”

Item	Subject device: Century HLM, LLC Century Perfusion System	Predicate Device: LivaNova, PLC Stöckert S5 System (K060053)
<b>Tubing raceway concentricity (Concentricity about axis of rotation of pump head.)</b>	0.005 mm (0.0002 inch)	0.03 mm (0.0012 inch)



# Century Base with Extra Long UPS

- 2 hours of UPS battery backup for an entire 5 pump system
- Lift and lock in place pumps for easy access to Base
- Room for excess cable coils inside Base





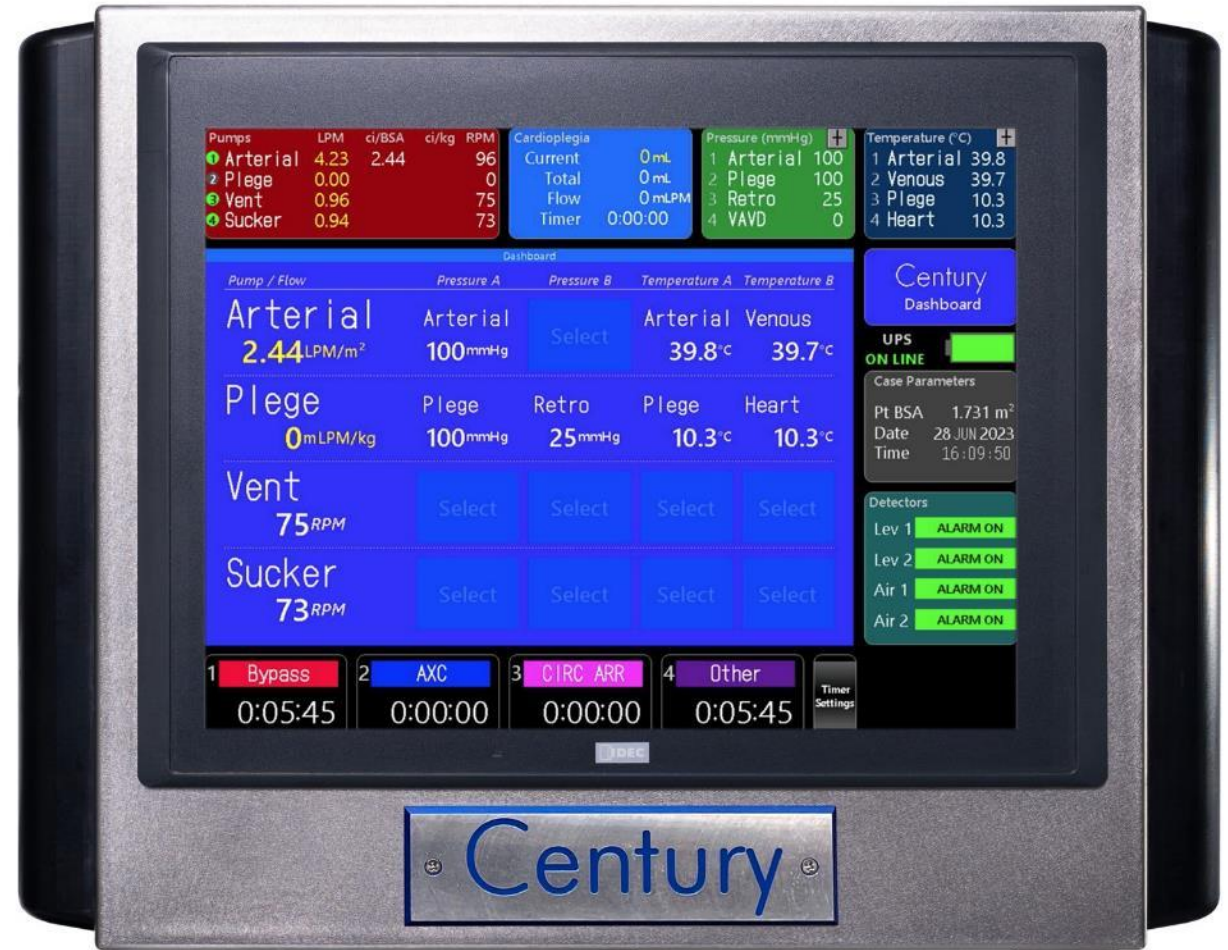
# Century Base Easy Access

- Cable Management - 4 drip proof pass through access ports on back and sides
- Protected channel under Base for H/C water lines (keeps them clean and out of the way when pushing up to the table)
- Lighted front door for easy access to sensor connections



# Century CPC Color Touchscreen

- Intuitive tested for quick and easy use of all features
- Perfusion parameters are always displayed, no menus, auto-closing windows
- All-in-one feature set; 4 Pressures, 4 Temps, 4 Timers, 2 Level and 2 Bubble sensors
- RS232 serial port data streaming to any Electronic Medical Record (EMR)







## Anivia SG1000 Console System, Mast Mounted on Century HLM Cart

- Users can select Pump Drive to be compatible with disposables

Medtronic®  
Bio-Pump+®



PDM-001

Maquet®  
Rotaflow



PDM-002

Medtronic®  
Affinity™ CP



PDM-003

LivaNova®  
Revolution®



PDM-004

# APMTD's Anivia Story

- **Flexible choice Pump Drives**
  - Drives are Hot Swappable  
<2min to switchover
  - Allows clinician to choose different disposable per system or per patient.
- **Advanced Display**
  - Modern Touch Display
  - Whole Case Timeline Graphs

## Compatible Pump Heads



## High Flexibility

- Choice of different pump drives
- Configure for clinical demands
- Rapid switchover at bedside
- Reduces capital expenses
- Common training

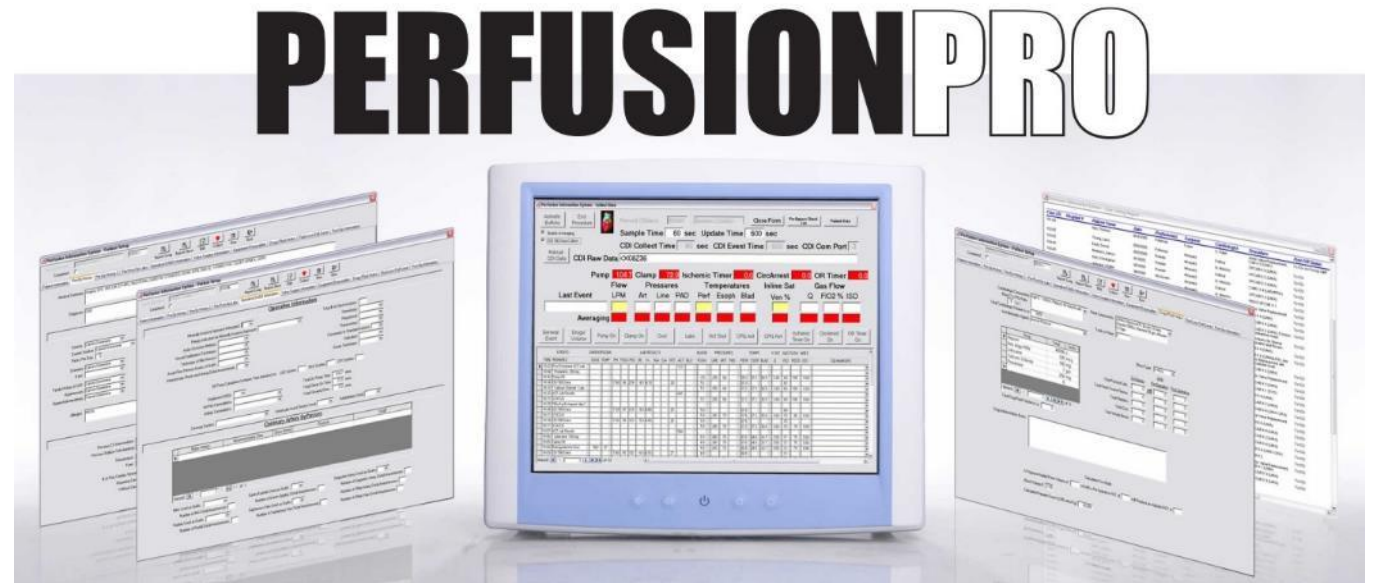
## Advanced Display

- Whole case timeline graphs
- Available for download
- Intuitive Touch Screen GUI
- Rotary Knob Touch Control



# Electronic Medical Record

- Runs on standard Windows 10 Laptop, Tablet, or Windows monitor
- Connects to pumps and monitors
- Goal Directed Perfusion
- DO<sub>2</sub>, VO<sub>2</sub>, VO<sub>2</sub>/DO<sub>2</sub> ratio
- Creates detailed automated reports
- Collects pre, during, and post procedure data
- Download free 6-month trial version
- <https://perfusionpro.com>
- AFFORDABLE





# Make It Yours

## Compatible With Multiple Perfusion Pumps And Accessories

### Century Shown With:

- Anivia SG1000 Centrifugal Pump
- Quest MPS Cardioplegia Pump





# Century Touchscreen Interface

- Perimeter tiles are always there, perfusion parameters are always visible
- Touching a perimeter tile opens that tile in the center window; same color, larger font, more settings
- Pressing another perimeter tile automatically closes previous tile and opens the new tile in center window
- Touching text in center window opens a keyboard pop up or toggle through setting options



# Follow Function Alarm Indication

- Audible alarms are user choice, except for Air & Level detectors
- Visible flashing alarms are mandatory
- Visible flashing alarm in a perimeter tile identifies the alarming parameter
- Touch alarming tile to open center window, visible flashing alarm indicates the alarming parameter



# Case Parameters

- Enter height & weight
- Select BSA algorithm
- Adjust speaker volume
- Adjust local time & date
- Touch beep On or Off
- Test UPS
- New case button clears information that is not retained

**Top Status Bars:**

- Pumps:** Arterial (0.00 LPM), Plege (0.00 LPM), Vent (0.00 LPM), Sucker (0.00 LPM). ci/BSA: 0.00, ci/kg: 0, RPM: 0.
- Cardioplegia:** Current (0 mL), Total (0 mL), Flow (0 mLPM), Timer (0:00:00).
- Pressure (mmHg):** Arterial (0), Plege (0), Retro (0), VAVD (0).
- Temperature (°C):** Arterial (39.8), Venous (39.7), Plege (10.3), Heart (10.3).

**Case Parameters Section:**

Patient Height	Patient Weight	Algorithm	Body Surface Area
160.0 cm	70.0 kg	DuBois	1.731 m <sup>2</sup>

**Speaker Volume:** A vertical slider with up and down arrow buttons.

**Buttons:** Touch Beep On, Test UPS, New Case, Set System Time.

**System Date/Time:** 2023/06/28 16:03:43

**Bottom Row:** 1 Bypass (0:00:00), 2 AXC (0:00:00), 3 CIRC ARR (0:00:00), 4 Other (0:00:00), Timer Settings.

**Right Sidebar:**

- Century Dashboard**
- UPS:** ON LINE (green bar)
- Case Parameters Summary:** Pt BSA 1.731 m<sup>2</sup>, Date 28 JUN 2023, Time 16:03:43.
- Detectors:** Lev 1 ALARM OFF, Lev 2 ALARM OFF, Air 1 ALARM OFF, Air 2 ALARM OFF.



# Pumps

- Label pumps connected to CPC
- Toggle box to select tubing size
- Select cardiac index for arterial
- Sync if RPM difference is >1 RPM with roller pump





# Cardioplegia

## Select Auto Volume/Timer “ON” for automatic cardioplegic operations:

- Initiation of plegia pump starts *Total* volume count, resets *Current* volume count, and starts *Elapsed Timer* to indicate time of plegia administration
- Enter value for pump to *Auto-Stop* in volume or time, before or after plegia initiation (*Auto-Stop* use is optional)
- Plegia pump OFF stops volume counts and restarts *Elapsed Timer* to indicate time since plegia administration ended
- Enter *Elapsed Time Reminder* value



# Pressures

- Label pressure channels
- Set Maximum and Minimum values
- Toggle audible alarm ON or OFF
- Choose pumps to STOP for each pressure
- Zero pressure channels



# Temperatures

- Label temperature channels
- Set Maximum and Minimum values
- Toggle audible alarm ON or OFF





# Detectors

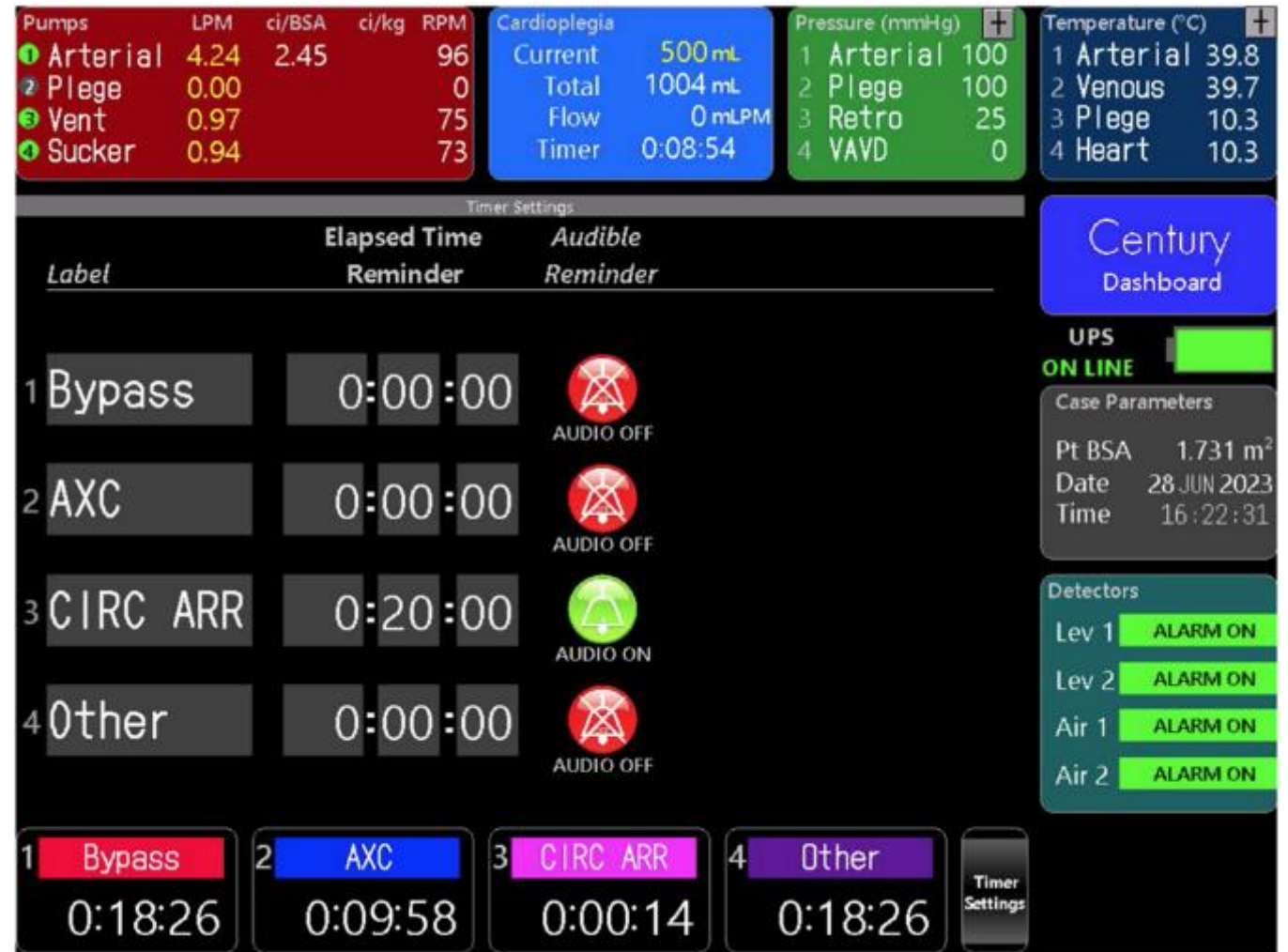
- Yellow (upper) and Red (low) level detectors reset automatically
- Yellow 'Half-Speed' option provides servo control during poor venous return situations
- Label air detectors
- Enable alarms; OFF during priming, ON during Bypass
- Choose pumps to STOP for each detector





# Timer Settings

- Touch a timer tile to Start
- Touch to Stop
- Hold touch 3 seconds to reset
- Label count-up timers in the “Timer Settings” window
- Enter timer alarm value in the “Timer Settings” window (as needed)
- Toggle audible alarm ON or OFF in “Timer Settings” window



# Keyboard

- Touching a text box opens numeric keyboard pop up

The screenshot displays a medical device interface with multiple data panels and a central control area. At the top, there are four main panels: Pumps, Cardioplegia, Pressure (mmHg), and Temperature (°C). Below these is a 'Pump Settings' section with a table of pump parameters. A keyboard overlay is visible in the center, with the word 'Arterial' entered in the top text box. The bottom of the screen shows four status buttons: Bypass, AXC, CIRC ARR, and Other, each with a timer. On the right side, there are additional panels for 'Century Dashboard' and 'ameters'.

Pumps	LPM	ci/BSA	ci/kg	RPM
1 Arterial	4.28	2.47		97
2 Plege	0.00			0
3 Vent	0.00			0
4 Sucker	0.00			0

Cardioplegia	Current	Total	Flow	Timer
	0 mL	0 mL	0 mLPM	0:00:00

Pressure (mmHg)	1 Arterial	2 Plege	3 Retro	4 VAVD
	100	100	25	1

Temperature (°C)	1 Arterial	2 Venous	3 Plege	4 Heart
	39.8	39.7	10.3	10.3

Label	Flow [LPM]	ci/BSA	ci/kg	RPM	Tubing	Show	Show	RPM
1 Arterial								
2 Plege								
3 Vent								
4 Sucker								

Century Dashboard

ameters

1.731 m<sup>2</sup>

10 JUL 2023

12:11:59

ALARM OFF

ALARM OFF

Air 1 ALARM OFF

Air 2 ALARM OFF

1 Bypass 0:01:46

2 AXC 0:00:00

3 CIRC ARR 0:00:00

4 Other 0:01:46

Timer Settings

# Numeric Keyboard

- Touching a numeric text box opens numeric keyboard pop up

