

ArthroFree™

The Wireless Camera for Arthroscopy and Endoscopy



agile technologies
for optimal care

Wire-Free Simplicity, for Efficiency and Safety¹

Surgeons asked. Nurses dreamed. We delivered.

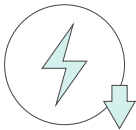
Efficiency at every angle



Time

Easy to use

- Same functionality with intuitive controls
- Fast setup and rapid teardown



Energy

One is the magic number

- One sterilization tray for ArthroFree components
- One sterilization process, requiring one chemical treatment
- Requires 1.1% of the wattage of conventional cameras for comparable onscreen illumination



Value

The efficiency of simplicity²

- Fewer components on the surgical tower
- Fewer items in the sterile field
- No cables to prep, untangle, or replace

Safety, cool and simple



The ArthroFree System eliminates light-source-related:³

- Patient burns.
- OR fires.

The ArthroFree Advantage

Wireless technology for agility and security

- Surgeon-approved ergonomics and freedom of motion⁴
- Proprietary wireless connection for patient-data security
 - HIPAA-compliant, point-to-point encryption
 - Not dependent on Bluetooth or Wi-Fi

Low-heat efficiency for patient safety⁵

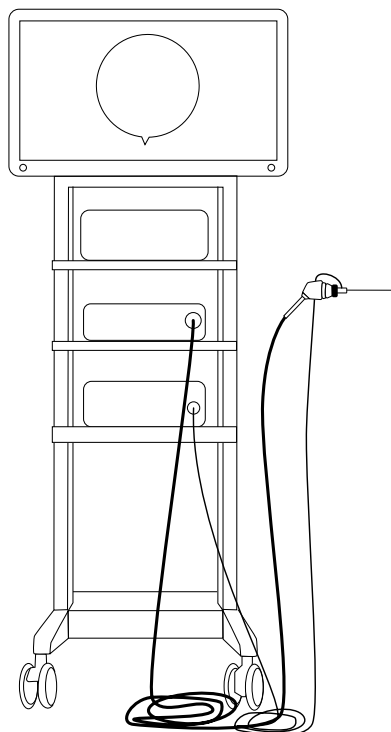
- Peak recorded temperature of fiber-optic wire 194.5 °C
- Drape ignition flashpoint 121.1 °C
- ISO standard 60601-1: Allowable max. temperature for device contact with patient 48.0 °C
- **ArthroFree's Meridiem™ light engine, maximum temperature 43.0 °C**

The five-step surgery prep

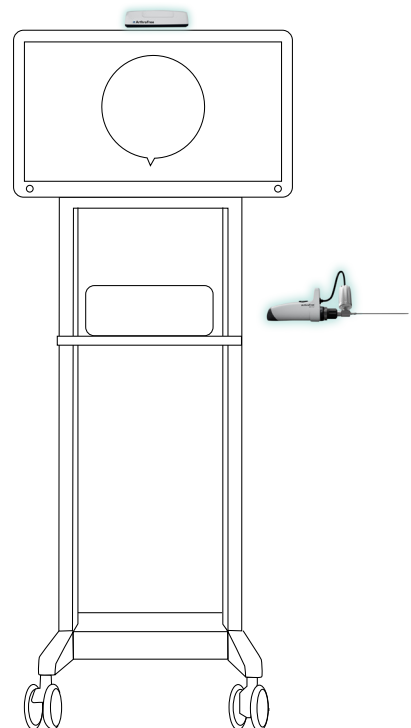
- 01** Remove the sterile components from their tray
- 02** Attach an endoscope and slide the Meridiem light engine onto the scope's ACMI input
- 03** Insert a charged battery to power on the system
- 04** Adjust the white balance
- 05** Experience freedom of motion with the ArthroFree System

Less is more ...
with ArthroFree

Conventional System



The ArthroFree System



Technical Specifications

The ArthroFree OR Kit includes: Camera Heads (3), Receiver (1), Batteries (15), Battery Charger (1), and Sterilization Trays (3). All Class II components, except for the Battery Charger. (Images not to scale.)



Camera Head

Imaging	1/2.7" CMOS HD
Sterilization	STERRAD®
Dimensions (handle)	13.8 x 5.0 x 4.2 cm (6.4 cm at antenna)
Weight, with battery	438 g
Product #	AF0001-101-10



Receiver

Imaging	1080p @ 60 fps HD video
Trigger ports	2x 3.5 mm mono (1/8") female
Video outputs	2x DVI
Dimensions (front)	16.4 x 11.3 x 4.2 cm
Weight	294 g
Product #	AF0002-101-10



Battery

Output electrical ratings	3.6 V 2930 mAh, 10.55 Wh
Sterilization	STERRAD®
Dimensions	11.2 x 3.8 x 2.4 cm
Weight	83 g
Product #	AF0003-101-10



Battery Charger

Output electrical ratings	12 vdc, 1 A, 5 bay
Dimensions, with batteries	35.7 x 14.9 x 10.6 cm
Weight, without batteries	800 g
Product #	AF0004-101-10



Sterilization Tray

Dimensions	32.6 x 18.4 x 6.8 cm
Weight	1400 g
Product #	AF0005-101-10

Notes

¹ 82% of respondents (n=84) indicate that they expect the ArthroFree System to improve safety. 84% of respondents (n=85) indicate that they expect the ArthroFree System to improve efficiency. Data on file. Lazurite Holdings LLC. Human Factors Summative Usability Studies. 2021-2022.

² The ArthroFree System typically replaces two box components on the surgical tower, light wires, and cable guides with a receiver (and a battery).

³ Bullet 1: Maximum heat production of the ArthroFree wireless camera: 43°C. Select legacy cameras exceed 190°C. Data on file. Lazurite Holdings LLC. 21-046R. External Temperature Validation. 2021. Bullet 2: Cowles CE Jr, Culp WC Jr. Prevention of and response to surgical fires. *BJA Education*. 2019; 19(8):261-266.

⁴ Data on file. Lazurite Holdings LLC. 21-043R. Human Factors Summative Usability Study of the ArthroFree Wireless Surgical Camera System. 2021.

⁵ Bullet 1: Spradling K, Uribe B, Okhunov Z, et al. Evaluation of ignition and burn risk associated with contemporary fiberoptic and distal sensor endoscopic technology. *Journal of Endourology*. 2015; 29(9): 1076-82. Bullet 2: 3M. "Article Information Sheet. 3M™ Ioban™ 2 Antimicrobial Incise Drapes 6035, 6040, 6048, 6050, 6051, 6640EU, 6648EU, 6650EU, 6651EU." Document Group: 08-3227-9. Version: 1.00. October 13, 2021. <https://tinyurl.com/3Msafetydata>. Bullet 3: ISO standard at 48°C for contact of 1m 1s to 9m 59s. SL Power Electronics Corp. "Considerations for Maximum Allowable Temperature as per Safety Standards IEC 60601-1, IEC 60950-1 and IEC 61010-1." AN-G012. Application Note V0719. 2019. Bullet 4: Data on file. Lazurite Holdings, LLC. 21-046R. External Temperature Validation. 2021.

Learn more about the [advantages of ArthroFree.](#)

Contact us at [1.833.214.2324](tel:1.833.214.2324) or contact@lazurite.co.

lazurite.co/arthrofree

22006D/20221.0

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