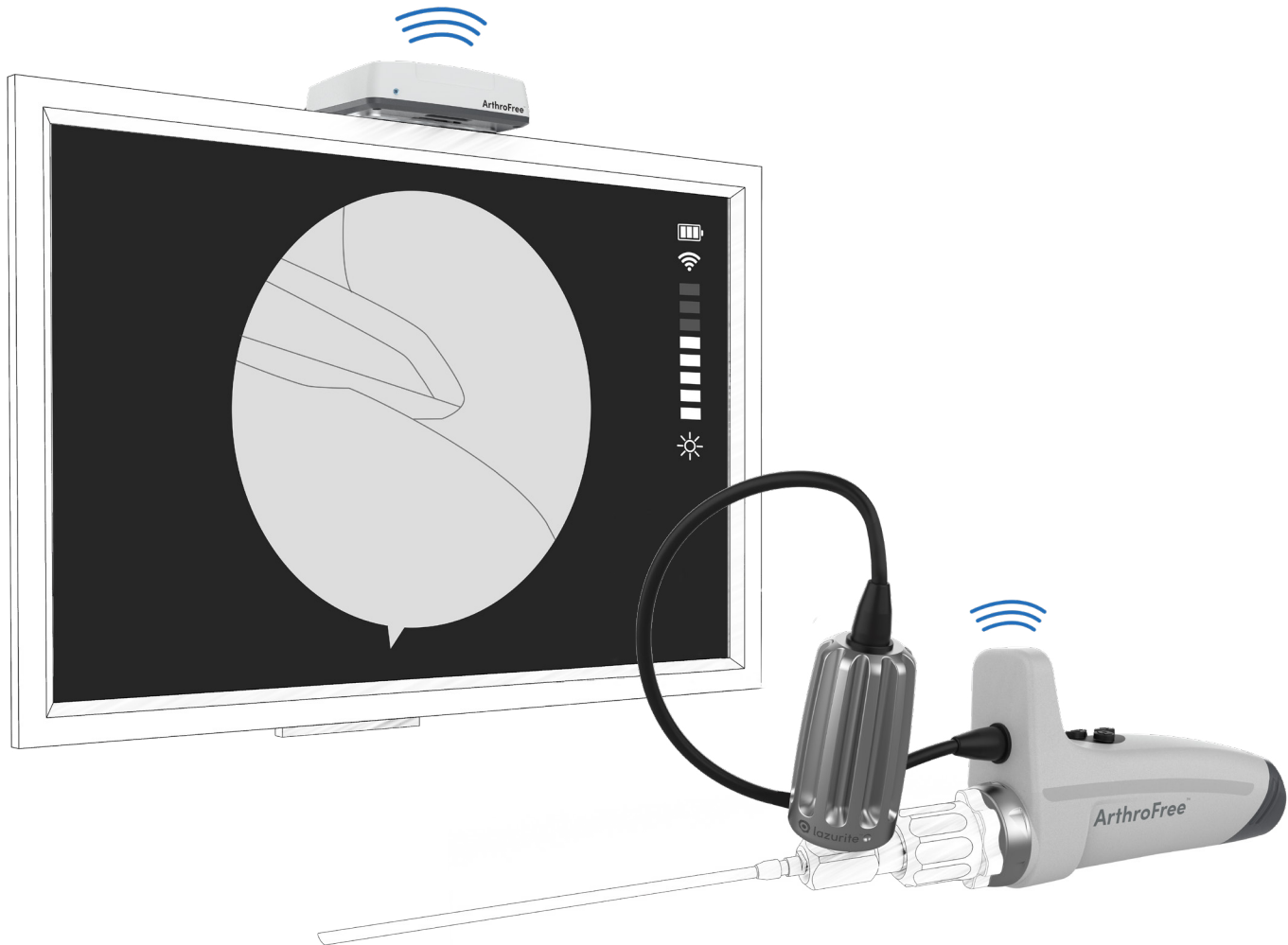


ArthroFree[®]

The Wireless Camera for Arthroscopy and Endoscopy



 **lazurite[®]** | agile technologies
for optimal care



Wire-Free Simplicity, for Efficiency and Safety¹

Surgeons asked. Nurses dreamed. And we delivered: a surgical camera with the ease of use, comfort, and freedom of movement you'd expect in the wireless era.

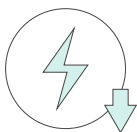
Efficiency at every angle



Time

The ArthroFree System:

- Offers drop-in compatibility with contemporary OR technologies.
- Reduces set-up and take-down times.²
- De-clutters the sterile field and eliminates camera-cable-related interruptions.



Energy

One is the magic number

- One sterilization tray for ArthroFree components
- One sterilization process, requiring one chemical treatment

Low wattage, smart consumption

- Conventional light box (90W to 400W): in use all day long
- ArthroFree light source (5W), with rechargeable battery: in use from white balance to end of procedure



Value

The efficiency of simplicity³

- Fewer components on the surgical tower
- No cables to prep, untangle, or replace
- **Projected cost-per-case savings up to 20%.⁴**

Safety, cool and simple



The ArthroFree System eliminates camera-cabled-related:

- Patient burns.
- Drape fires in the OR.⁵

The ArthroFree Advantage

Wireless technology for agility and security

- Surgeon-approved ergonomics and more freedom of movement⁶
- 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 safety⁷

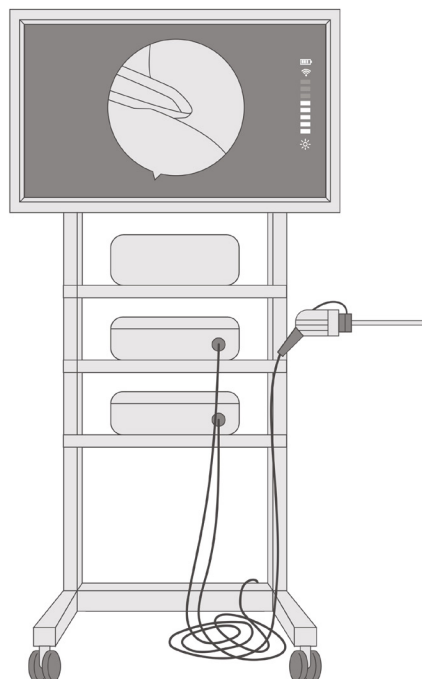
- Peak recorded temperature of fiber-optic wire 194.5 °C
- Drape ignition flashpoint 121.1 °C
- ISO standard 60601-1: Allowable max. temperature for device contact with patient 48.0 °C
- **ArthroFree's Meridiem® light engine, maximum temperature 43.0 °C**

The five-step surgery prep

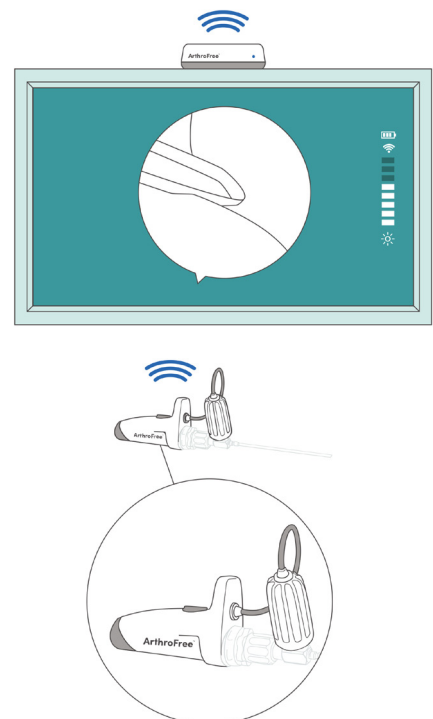
- 01** Remove the sterile components from their tray
- 02** Attach an endoscope and slide the Meridiem light engine onto the scope's ACMI input
- 03** Insert a charged battery to power on the system
- 04** Adjust the white balance
- 05** Experience the comfort and freedom of ArthroFree

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 #	AF0001-101-11



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

- 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 LLC. Human Factors Summative Usability Studies. 2021-2022.
- The setup, takedown, and processing times of the ArthroFree System were significantly lower than respective times of a conventional camera system. Lazurite LLC. 21-073R. Simulated OR Wireless versus Wired Arthroscopic Camera Set-Up and Take Down: Summary Report. 2022.
- The ArthroFree System typically replaces two box components on the surgical tower, fiber-optic cable, and power cable with a receiver and a battery.
- This analysis includes amortized capital, sterilization costs, disposable/replaceable items, and service-contract costs. The projected 20% is based upon 30 arthroscopic procedures per week. Lazurite LLC. 22-015R. Cost-Per-Case Analysis of Surgical Camera Systems: The Wireless ArthroFree™ System vs. Conventional Wired Systems vs. Disposable Surgical Camera Systems. 2022.
- Bullet 1: Maximum heat production of the ArthroFree wireless camera: 43°C. Select legacy cameras exceed 190°C. Data on file. Lazurite 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.
- Data on file. Lazurite LLC. 21-043R. Human Factors Summative Usability Study of the ArthroFree Wireless Surgical Camera System. 2021.
- 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 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 sales@lazurite.co.

lazurite.co/arthrofree

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