

3M™ Littmann®  
TeleSteth™ System



Tele-Auscultation

Hear It.

As If You Were There.





## Littmann® Sound Quality is Now Available for Telemedicine

3M™ Littmann® Stethoscopes are known for their exceptional sound quality. And the award-winning<sup>4</sup> 3M™ Littmann® Electronic Stethoscope Model 3200 with Bluetooth® technology is no different. In fact, clinical evidence shows it's easier to hear difficult-to-detect heart and lung sounds with the Littmann® Electronic Stethoscope Model 3200 vs. a high-end cardiology grade stethoscope.<sup>1-3</sup> Now, this clinically-proven stethoscope has been paired with software that works for tele-auscultation. The digitally-captured sound of a patient is sent across a secure data network to a Littmann® Electronic Stethoscope Model 3200 at a remote site. The consultant operating a different Littmann® Electronic Stethoscope Model 3200 at the remote site hears the digitally-captured sound of the patient. The result is an exceptional sound experience unparalleled in tele-auscultation until now. Hear it. As if you were there.

# Don't Miss The Sounds You Need To Hear.

### Clinical Evidence

Studies comparing non-electronic, cardiology-type stethoscopes and the 3M™ Littmann® Electronic Stethoscope 3000 Series had these findings:

#### With the Littmann® Model 3000 Series Stethoscope...

**83% of cardiologists** indicated it was easier to detect/hear an S3 gallop<sup>1</sup>

**82% of cardiologists** indicated it was easier to detect/hear an aortic regurgitation murmur (Grade 1 or 2)<sup>2</sup>

**90% of critical care nurses** indicated it was easier to detect/hear abnormal lung sounds<sup>3</sup>



3M™ Littmann® Electronic Stethoscope Model 3200

# Award-winning Technology



## State-of-the-Art Sound Sensor

Built to stringent specifications, it provides a life-like 3M™ Littmann® sound experience similar to a high-end cardiology stethoscope.



## Onboard 12-Track Recording

Allows up to 12 separate 30-second sound tracks for later playback. Each track is accompanied by an additional 10-second track for verbal comments. Tracks can be uploaded later for store-and-forward consultation.



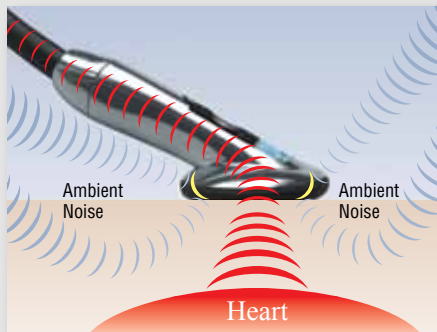
## Up to 24X Sound Amplification

Extra listening power for those times when you need it; may be helpful when a heart, lung or body sound is especially faint; when a patient is obese; or when a patient's clothing restricts your listening experience.



## Proprietary Ambient Noise Reduction Technology

It cancels out, on average, 85% of ambient background noise that can interfere with the auscultation experience, without eliminating critical body sounds. So you're much less likely to miss the sounds you need to hear in noisy work environments.



## How Ambient Noise Reduction Works

The same ambient noise that travels through the air also travels through the body. 3M's proprietary ANR technology cancels out both sources of ambient noise, leaving the critical body sounds you need to hear.

## Convenient LCD Interface

Displays sound level, frequency mode, battery life and Bluetooth activation.

## Worry-Free Power

Multiple reminders when battery life is low.

Tool-free access to battery compartment.

## Easy to Operate

Dedicated controls for key functions.

Menu button brings you to screen-guided commands for additional functions, including Bluetooth activation.

## Auto-On Feature

Stethoscope stays in battery-saving "sleep mode" until you start your next auscultation. Sound sensor and LCD screen activate with patient contact.

## Rugged Design for Years of Trouble-Free Operation

Durable metal chestpiece.

Performance tested to withstand accidental drops to the floor and impacts against bed rails and door frames.

Two-year eartip-to-diaphragm warranty.



3M™ Littmann® TeleSteth™ System

# Delivering an Exceptional Tele-Auscultation Experience

Once in session, the TeleSteth™ System allows clinicians to hear real-time patient body sounds as if they were in the same exam room with the patient. Special software features enable flexible access and seamless communication between the patient site clinician and the consultant.

## Access From Virtually Anywhere

Web-based application allows you to join a remote exam room virtually anywhere you have an internet connection.

## Independent Filter and Volume Control

Consultant and patient site clinician independently select filter mode (Bell, Diaphragm or Extended Range) and volume level.

## Simultaneous Shared User Interface

Consultant and patient site clinician each have the ability to share and adjust the position of the stethoscope site indicator on the body image and use the instant messaging chat window.

## Reliable Wireless Bluetooth® Connection Feature

Wireless connection means no cords to get in the way during the auscultation, and no cords to clean between patients.



Consultant Site



Patient Site



# Interactive TeleSteth™ User Interface

## Real-Time Streaming Session

Connect live with another clinician for a remote patient exam.

### *My Stethoscope*

Stethoscope image displays a green check mark when a Model 3200 stethoscope is connected via Bluetooth® wireless technology. A red “x” indicates the stethoscope is not connected.

### *Body Listening Site*

Select from preset sites in the Listening Site drop down menu or point and click to indicate placement of the stethoscope on the body image window.

### *Active Session Indicator*

Side by side computer screen icons switch from red to green when the user is connected in a live session.

### *Host/Join a Session*

Both sending and receiving capability at the click of a button to “Host Session” at the patient site or “Join Session” at the consulting site.

### *Live Chat*

Two-way chat window for real-time streaming sessions allows message sharing between clinicians.

### *Live Phonocardiogram*

View auscultation sounds as they happen through the live waveform display at both the patient and consultant site.



## Additional Software Features

The TeleSteth™ System is available as a 3M hosted service or may be purchased as a Client-owned server software with additional features.

### *Upload/Download*

Store and forward recorded patient auscultation sessions for later reference by a consulting clinician. The TeleSteth™ System store and forward capability limited to Client Server systems only.

### *My Account*

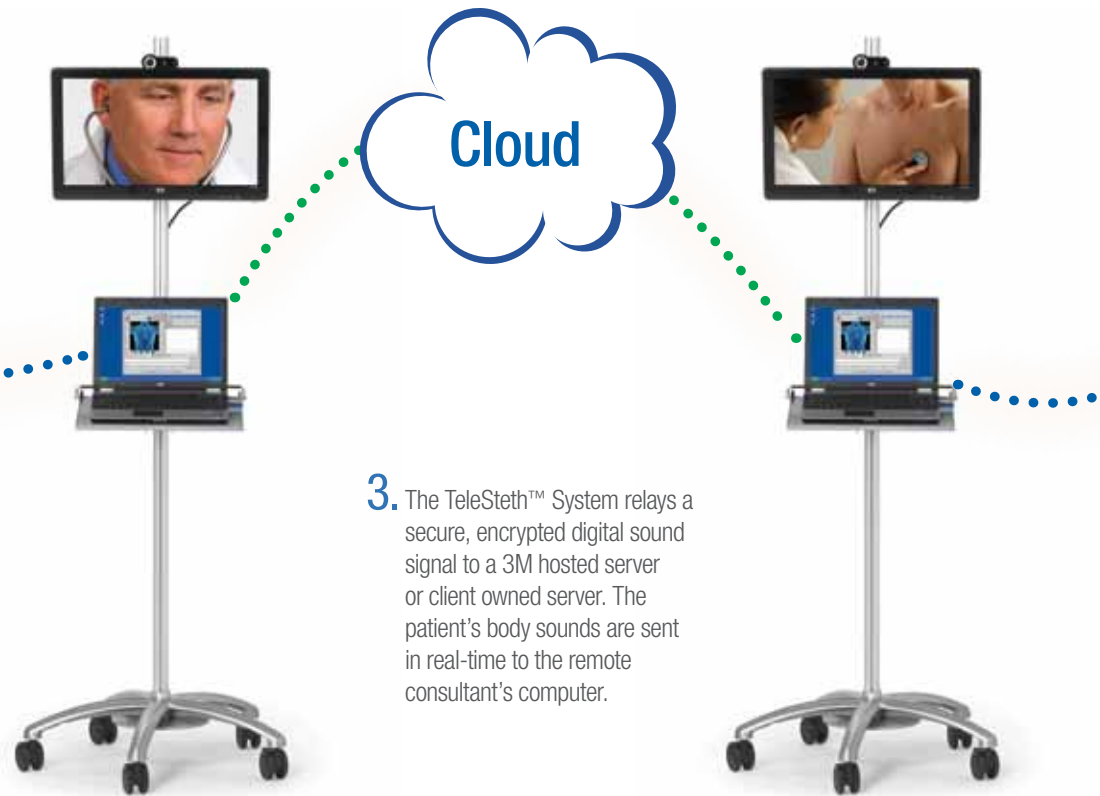
Manage user account settings including contact list, password and security features. Reference user manual and software license terms and conditions.

# Simple Steps to Remote Auscultation

## How it Works



1. Clinician initiates remote auscultation session through easy-to-use software interface.
2. Clinician auscultates patient with the 3M™ Littmann® Electronic Stethoscope Model 3200. The patient's body sounds are transmitted to the computer via Bluetooth® technology.



3. The TeleSteth™ System relays a secure, encrypted digital sound signal to a 3M hosted server or client owned server. The patient's body sounds are sent in real-time to the remote consultant's computer.

# The New Standard in Tele-Auscultation

- ..... Bluetooth® to Computer
- ..... Computer to TeleSteth Server



4. Consultant's PC receives the digital signal and transmits the live patient auscultation using Bluetooth® technology to another Littmann® Model 3200 Stethoscope.

5. Consultant hears sounds in real time with independently controlled filter and volume level.

## 3M™ Littmann® TeleSteth™ System

# System Requirements

### System Requirements

- Windows XP SP3, Vista SP1 or later, or Windows 7
- 512 MB RAM
- 1 gigahertz processor or better
- 1023 x 600 graphic display or better
- USB 1.1 port or better
- Approximately 100kbps bandwidth is required per streaming connection
- Approximately 1MB of storage space is required for each recorded sound track

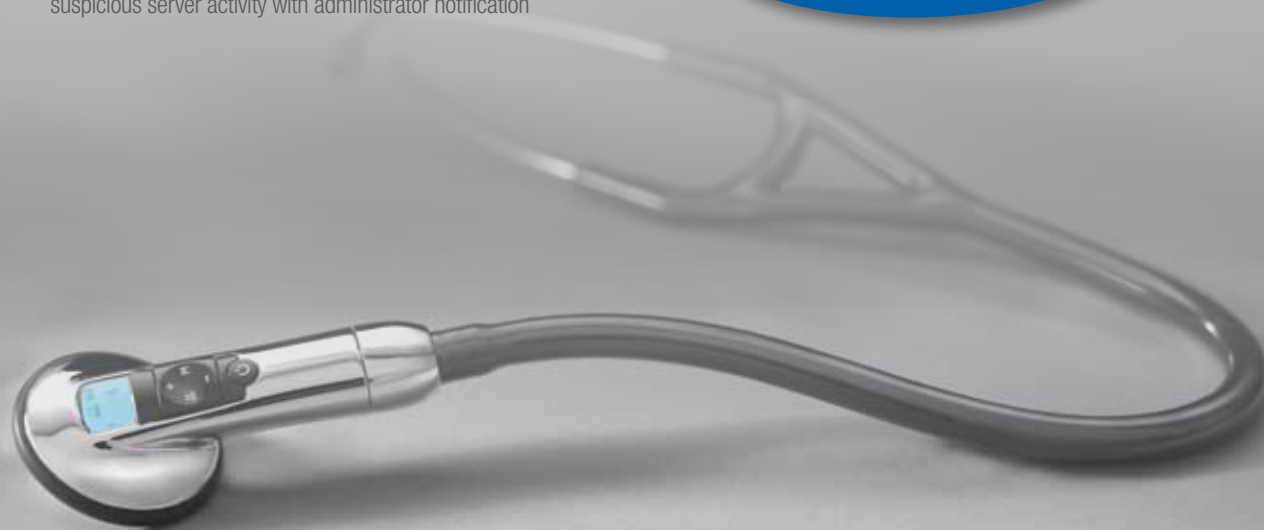
### Security

- All transmitted data is encrypted via SSL encryption
- All stored data is encrypted at both client and server endpoints
- Automated mechanisms detect failed authentication and suspicious server activity with administrator notification

### Network Specifications

- “Out-of-band” operation functions in parallel with both software and hardware based videoconferencing codecs
- Configurable for operation on an existing private, public or hybrid network infrastructure
- Adjustable latency to accommodate various network technologies (client server only)
- Requires SSL certificate maintenance for the server (3M will help generate certificate request)
- Configurable for stand-alone user accounts or integration with an existing LDAP authentication server
- Real-time streams use TCP over SSL on ports 1100-1300

**FREE 30-DAY TRIAL**  
**1-800-228-3957**



# Ordering Information

## 3M™ Littmann® TeleSteth™ System

Description	Catalog Number
3M™ Littmann® TeleSteth™ Software, Hosted Client License	TS1200CL
3M™ Littmann® TeleSteth™ Software, Local Client License	TS1100CL
3M™ Littmann® TeleSteth™ Software, Local Server License	TS1100SL
3M™ Littmann® TeleSteth™ Software, LDAP Integration	TS1100LD

Description	Tubing Color	Catalog Number
3M™ Littmann® Electronic Stethoscope Model 3200	Black	3200BK27
3M™ Littmann® Electronic Stethoscope Model 3200	Burgundy	3200BU
3M™ Littmann® Electronic Stethoscope Model 3200	Navy Blue	3200NB

Visit [www.Littmann.com/Telemedicine](http://www.Littmann.com/Telemedicine) for further information. For a free 30-day trial (U.S. only) call the 3M Health Care Helpline at 1-800-228-3957.

# www.Littmann.com

### References

1. Comparison by trained Cardiologists of the 3M™ Littmann® Model 3000 Electronic Stethoscope with Ambient Noise Reduction to the 3M Littmann Cardiology III Stethoscope for the detection of recorded third heart sounds (S3) in the presence of simulated ambient noise.
2. Comparison by cardiologists of the 3M™ Littmann® Electronic Stethoscope Model 3000 with Ambient Noise Reduction to the 3M™ Littmann® Cardiology III Stethoscope for detection of recorded murmurs in the presence of simulated ambient noise. 70-2009-7406-4
3. Comparison by critical care nurses of the 3M™ Littmann® Electronic Stethoscope Model 3000 with Ambient Noise Reduction to the 3M™ Littmann® Cardiology III Stethoscope for detection of recorded lung sounds in the presence of simulated ambient noise. 70-2009-7405-6
4. 3M™ Littmann® Electronic Stethoscope Model 3200 and Zargis Cardioscan Software were given the following awards: Red Dot Design Award (March 2010), Medical Design Excellence Awards (June 2010), *Popular Science* magazine's 2009 Innovation of the Year Health Grand Award Winner (November 2009), Edison Award—Gold Award in the Electronics and Computers category (April 2010).



### 3M Health Care

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