



### Multi-Link<sup>™</sup> X2 ECG System Reusable and disposable single-patient-use leadwires

# Choose flexibility and quality for your reusable and disposable single-patient-use leadwires

For more than a decade, our engineers have designed the only official, validated ECG supplies and accessories for GE<sup>®</sup> Healthcare patient monitoring systems. Now, with our Multi-Link<sup>™</sup> X2 ECG System, finding the right connection in your healthcare facility is no longer a concern. We are extending this expertise, knowledge and focus on quality to several other major bedside monitoring platforms, by now offering ECG capital accessories and solutions for the following brands:

• GE<sup>®</sup> Healthcare

• Nihon Kohden®

• Philips®

Mindray<sup>®</sup>

• Spacelabs®

Our new Multi–Link X2 universally compatible trunk cables allow you to use the same leadwires throughout your facility, no matter which of these brands are in the room. Leadwires that move with the patient can help lower the rate of hospital acquired infections (HAI) by reducing cross-contamination.<sup>1</sup>

### Multi-Link X2 ECG System: your single-source solution for all ECG needs

Unlike most other ECG solution providers, we offer both reusable and singlepatient-use portfolios. Healthcare facilities, which have not yet transitioned to fully disposable ECG leadwires, can use our single-patient-use sets in high-risk patient care areas while continuing to utilize reusable sets throughout the rest of their facility. The Multi-Link X2 ECG System is your single-source solution for all ECG needs.



## Why convert to disposable leadwires?

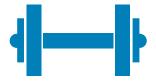
### Clinical studies focusing on disposable leadwires

Growing evidence demonstrates that, even when appropriate cleaning protocols are in place, antibiotic resistant bacteria can survive on a large portion of a facility's reusable ECG leadwires. The University of Wisconsin cultured 100 clean, reprocessed leadwires and discovered 77% of them still showed signs of bacteria growth.<sup>2</sup> Some bacteria can survive for at least 5 weeks on surfaces of medical equipment, making them very difficult to kill.<sup>3</sup>

At the Bon Secours Cancer Institute at St. Francis Medical Center in Midlothian, VA, a 23-month zero infection rate was achieved when they added single-patient-use leadwires to their infection control bundle.<sup>4</sup> The Centers for Disease Control and Prevention (CDC) recommends healthcare facilities consider implementing patientdedicated noncritical equipment, such as blood pressure cuffs or leadwires, to help manage the spread of multidrug-resistant organisms.<sup>5</sup>

Because they stay with the patient until hospital discharge, single-patient-use leadwires help mitigate patient cross-contamination. Removing the opportunity for bacteria to interact with multiple patients from the same leadwire can help reduce cross-contamination from the reuse of leadwires in your healthcare facility.







#### **Bacterial contamination: 77%**<sup>2</sup>

In a University of Wisconsin study, antibiotic-resistant bacteria were found on 77% of cultured ECG leadwires after they were cleaned and reprocessed.

#### Bacteria strength: 5 weeks<sup>3</sup>

Some bacteria can survive for at least 5 weeks on surfaces of medical equipment after the initial outbreak has been eradicated.

#### Impact of infection control bundle: 0% infection rate for 23 months and 5 months<sup>4</sup>

When two hospitals implemented an infection control bundle, which included disposable leadwires, one reported a 23-month zero infection rate and the other reported a 5-month zero infection rate as a result.

# Which option is best for your healthcare facility?

Every healthcare facility is unique. That's why the Multi-Link X2 ECG System provides a robust offering of lengths, grabbers and snaps for both reusable and disposable configurations. Our unique system allows you to fully utilize either reusable or disposable leadwires, or use a mixture of both throughout your facility–without experiencing compatibility concerns.

Our bedside offering eliminates the need for pesky adapters, which are often misplaced or accidentally transferred with the patient. Our gray, reusable ECG trunk cables remain with the bedside monitoring system, eliminating the need for adapters.





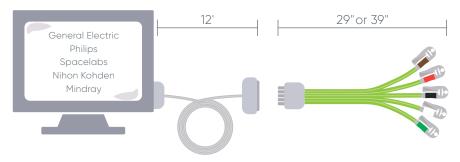
Even in telemetry settings, we provide an offering that avoids adapters. Our direct-connect disposable leadwires offer a connection compatible with many of the leading telemetry devices in today's market.

# Whole-house disposable leadwires

Utilizing a disposable leadwire system throughout your entire healthcare facility can help you reduce the possibility of crosscontamination from the reuse of ECG leadwires. Our versatile single-patient-use leadwires remain with the patient throughout their stay, even when transferred between departments with different monitoring solution brands.

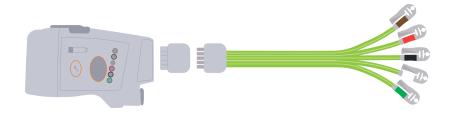
### Two different configurations for whole-house disposable leadwires

#### **Traditional Configuration - Bedside**



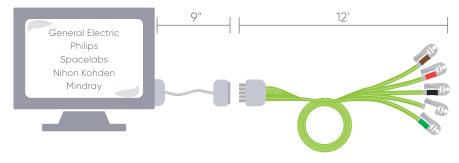
The traditional configuration utilizes a 12-foot ECG cable and 39-inch or shorter leadwire. This configuration features the same length cables and leads in a typical reusable set up

#### **Traditional Configuration - Telemetry**



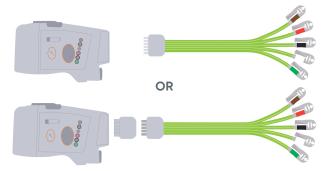
If a patient is transferred to a telemetry unit, their 29-inch leadwire can be plugged directly into most GE Healthcare telemetry devices. We also offer reusable adapters compatible with many other telemetry devices.

#### **Extra-Long Leadwire Configuration**



Unlike a traditional configuration, the extra-long leadwire style utilizes a 9-inch trunk cable and 12-foot leadwire. This extra short, reusable trunk cable provides peace of mind knowing it is out of the patient's reach.

#### **Extra-Long Leadwire Configuration - Telemetry**



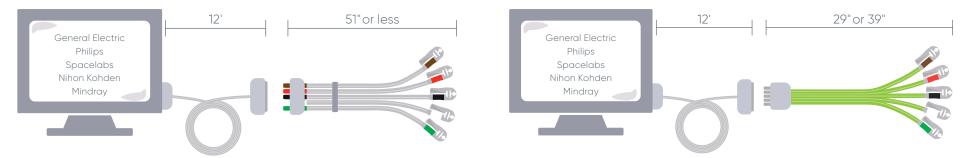
Extra-long leadwires are not appropriate for use with telemetry devices. We recommended a customer use a direct-connect disposable leadwire for the appropriate telemetry device. A 29" Multi-Link leadwire combined with a reusable adapter is also appropriate.

# Partial-house disposable leadwires

Unlike many other universal ECG systems, the Multi-Link X2 ECG System was designed with flexibility in mind, allowing healthcare facilities to use both reusable and disposable leadwires in different departments throughout their system. This helps healthcare facilities focus on single-patient-use leadwire solutions for the departments that need it most, while gaining support for a whole-house disposable solution in the future.

#### **Reusable leadwire configuration**

#### **Disposable leadwire configuration**



By utilizing 12' reusable Multi-Link X2 ECG trunk cables throughout your healthcare facility, you can use disposable\* or reusable Multi-Link leadwires in every room. If a patient transfers from a department utilizing disposable leadwires, the leads can remain with them for the rest of their stay.

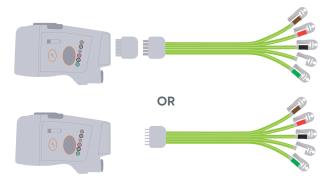
\*Extra-long disposable leadwires are not recommended for use with 12-foot trunk cables.

#### **Reusable leadwires in telemetry**



Multi-Link reusable leadwires will plug directly into most GE Healthcare telemetry devices. We also offer several reusable adapters compatible with other telemetry brands.

#### **Disposable leadwires in telemetry**

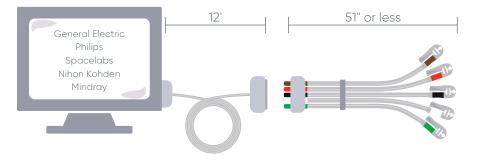


A patient with a disposable leadwire has two options for telemetry. They can plug their leadwire directly into most GE telemetry units, or use a reusable adapter with other brands. Otherwise, a new disposable directconnect leadwire can be utilized, eliminating the need for an adapter.

# Whole-house reusable leadwires

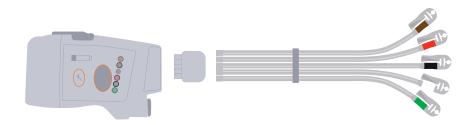
The Multi-Link X2 ECG system is designed to also function fully independent of disposable leadwires. Our reusable platform is perfect for healthcare facilities that need a single-source supplier of ECG capital accessories without sacrificing value, quality or reliability. Plus, we offer an industry-best "Double-Life" warranty for all of our ECG capital accessories. After converting to reusable leadwires with the Multi-Link X2 ECG system, healthcare facilities are set to convert to disposable leadwires when ready.

#### **Bedside Reusable Leadwires**



The traditional configuration utilizes a 12' ECG cable and 51" or shorter leadwire. This configuration uses the same length cables and leads typically used in a reusable set-up.

#### **Telemetry Reusable leadwires**



If a patient is transferred to a telemetry unit, the patient's 29" leadwire can be plugged directly into most GE Healthcare telemetry devices. We also offer reusable adapters compatible with many other telemetry devices.

### Did you know?

### The back of all Multi-Link X2 Trunk Cables have easy-to-read laser printing

This includes the reorder number, lot number and, in some instances, lead configurations. The lot number is in a MMYYYY format to easily discern the age of your trunk cables.



### Our reusable and disposable Multi-Link leadwires are stamped with the manufacturing date.



### Multi-Link X2 ECG System SKUs, AHA

Extra-long disposable leadwires are only intended to be used with the short, 9 in/23 cm reusable trunk cables listed on this page. For additional information please reach out to your local Vyaire sales representative.

For reusable ECG leadwire options please reach out to your local Vyaire sales representative.

### Multi-Link X2 ECG System SKUs, AHA (Continued)

#### Direct-connect disposable telemetry leadwires

Monitor input	SKU	Monitor brand	Connection style	Leads	Lead length
2086367-004	2052133-027	- GE	Grabber	3	- 29 in/75 cm
	2052133-007			5	
	2086367-004			6	
	2052104-027		Snap	3	
	2052104-007			5	
	2086349-004			6	
2090101-512	2090101-511	Philips	Grabber	3	33 in/85 cm
	2090101-512			5	
	2090101-513			6	
	2090101-521		Snap	3	
	2090101-522			5	
	2090101-523			6	
	2090101-611	Mindray	Grabber	3	- 31 in/80 cm
	2090101-612			5	
	2090101-621		Snap	3	
2090101-621	2090101-622			5	
	2090101-811	Nihon Kohden	Grabber	3	31 in/80 cm
	2090101-813			6	
	2090101-821		Snap	3	
2090101-822	2090101-823			6	

For additional connection styles and telemetry adapters please contact your local Vyaire sales representative.



#### REFERENCES

- 1 Kelley LM, et al. "Reusable Electrocardiography Lead Wires: A Potential Source of Infection." Cadence Health Delnor Hospital.
- 2 Jancin, B. Antibiotic resistant pathogens found on 77% of ECG lead wires. Cardiol News, March 2004, 2:14.
- 3 Falk, P., Winnike, J., Woodmansee, C., Desai, M. et al. Outbreak of vancomycin-resistant enterococci in a burn unit. Infect Control *Hosp Epidemiol*. September 2000, 21(9):575–582.
- 4 Brown, D. Disposable vs reusable electrocardiography leads in development of and cross-contamination by resistant bacteria. *Crit Care Nurse*, June 2011, 31(3):62-68.
- 5 Siegel J, Rhinehart E, Jackson M, Chiarello L, et al., Healthcare Infection Control Practices Advisory Committee (HICPAC). Management of Multidrug-Resistant Organisms In Healthcare Settings, 2006. CDC. Accessed on Jan. 18, 2017 from: http://www.cdc.gov/hicpac/pdf/MDRO/MDROGuideline2006.pdf

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