

Features

Provides fiber optic connections of 4120 Network audio signals:

- Allows distribution of low level audio signals from the 4120 Network audio master microphone or recorded audio for use at remote amplifiers
- Mounts internal to the model 4100 or 4120 fire alarm control panel
- Style 7 or Style 4 loop operation (Class A or Class B)
- Style 7 operation automatically connects to return loop in the event of an open fiber link

Fiber optic communications advantages:

- Essentially immune from external electromagnetic interference (EMI) both susceptibility and emissions
- Allows use of existing fiber optic cables
- Complements fiber optic network data communications

4190-9011 Fiber Optic Audio Transmitter:

- Receives source audio signal and translates it into light for fiber transmission
- Monitors for supervision signals
- Provides status LEDs and supervisory relay contacts

4190-9012 Fiber Optic Audio Receiver/Repeater:

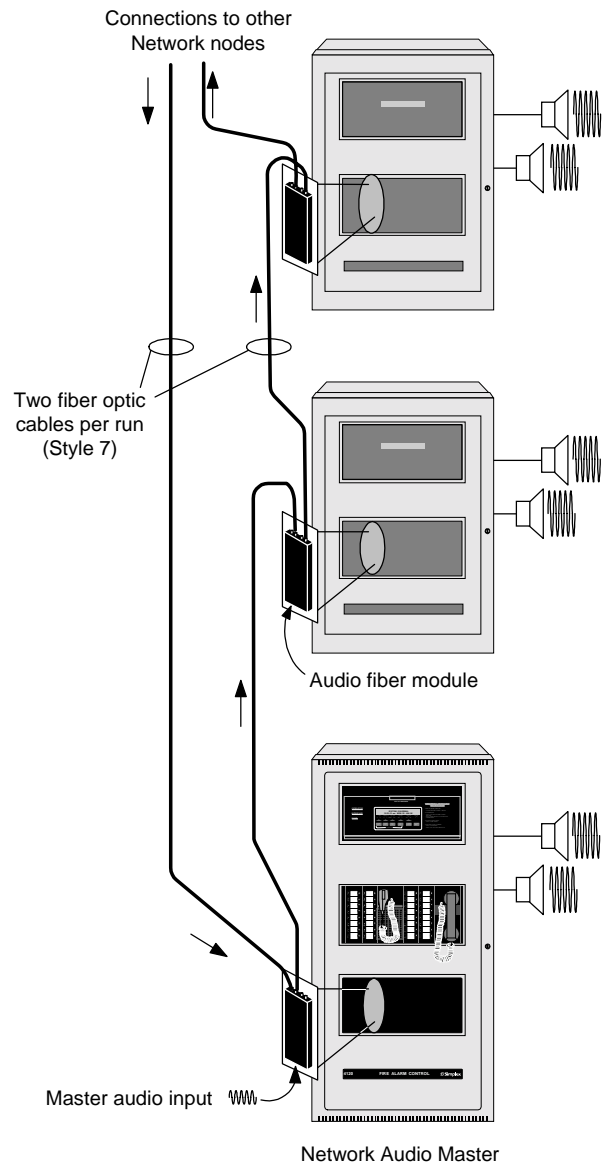
- Outputs received fiber audio transmissions to local amplifier
- Repeats received audio signal with amplification as required to transmit to the next network node
- Monitors for supervision signals
- Provides status LEDs and supervisory relay contacts

UL listed to Standard 864

Description

These modules provide fiber optic communications of broadcasted audio signals for Simplex 4120 Network fire alarm systems. A fiber optic master transmitter is installed at the location of the master audio signal. Each network node equipped with amplifiers for audio notification receives the network audio signal for use as required.

Each fiber optic receiver/repeater provides the desired audio signal for local use and also repeats and amplifies the signal for communication to the next node.

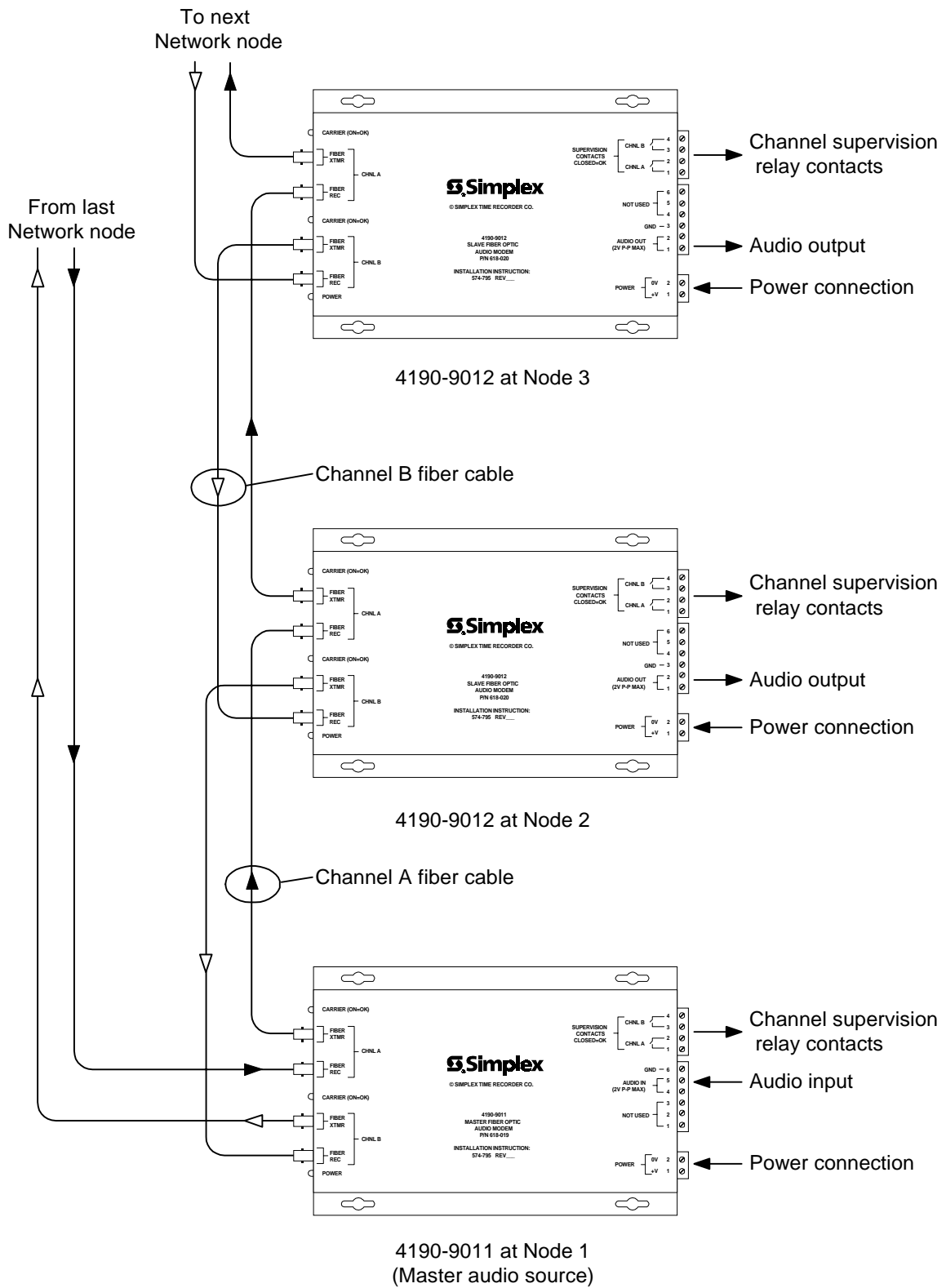


4120 Network Audio One-Line with Style 7 Fiber Optic Communications (data wiring not shown)

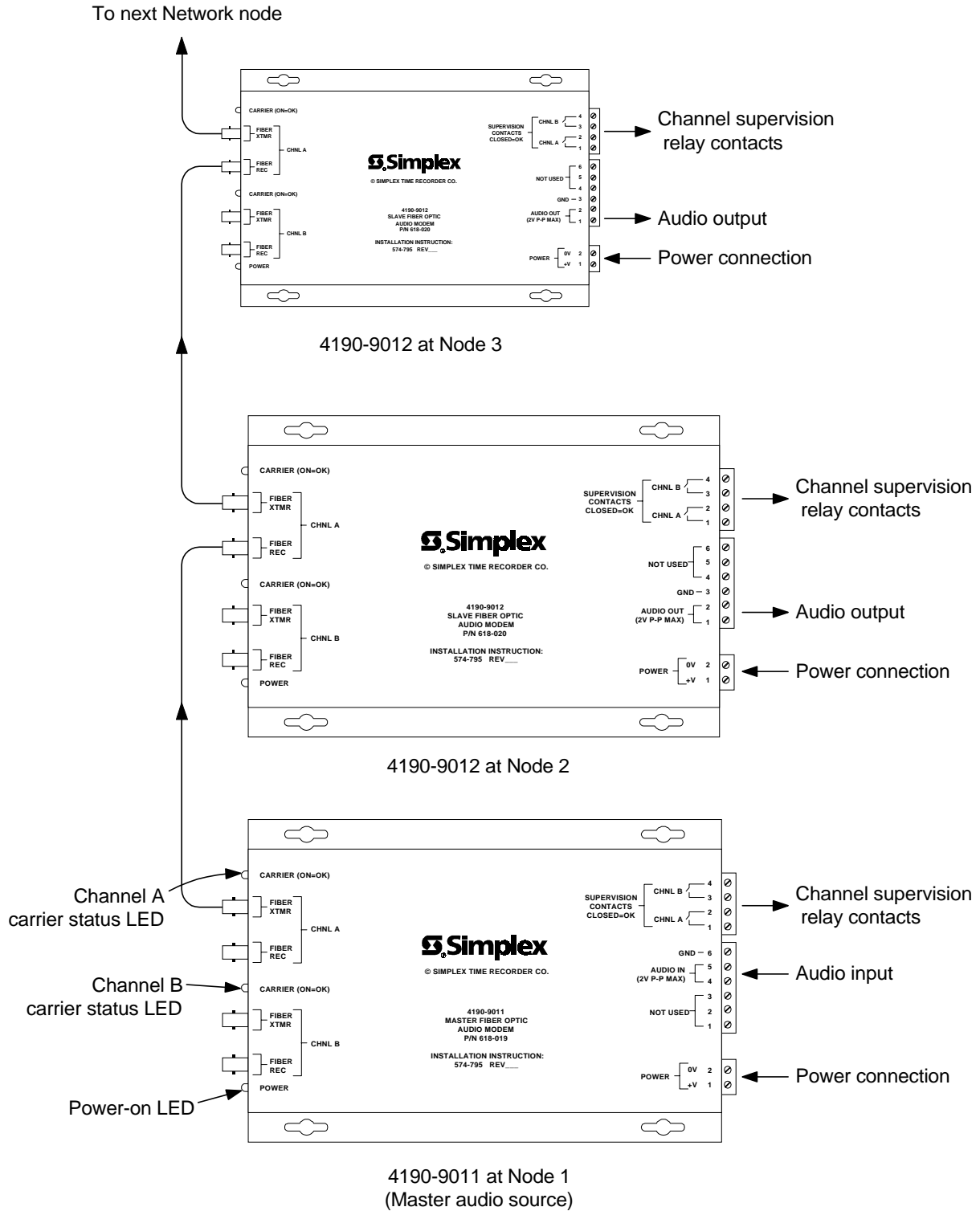
Application Examples

Network level audio broadcast examples would include: advising the network of specific problems, provide instructions to remind people of the evacuation plan, or to provide guidance in the event that the established evacuation procedures need to be revised. Additionally, other unrecorded announcements could be made such as emergency paging, severe weather advisories, or to advise of all clear conditions allowing evacuated personnel to return to their work areas.

Fiber Optic Audio Modules, Connection Details for Style 7 Operation



Fiber Optic Audio Modules, Connection Details for Style 4 Operation



NOTE: LED indicators shown on 4190-9011 are typical of both the 4190-9011 Master and the 4190-9012 Receiver/Repeater.

Fiber Optic Audio Interface/Repeater Specifications

General Operating Specifications		
Voltage	Operates from control panel internal voltage, nominal 24 VDC with battery backup	
Current	100 mA @ 24 VDC	
Input/Output Signal Level	1 V peak-to-peak	
Frequency Range	800 Hz to 2800 Hz	
Input/Output Impedance	600 Ω	
UL Listed Temperature Range	32°F to 120° F (0° C to 49° C)	
Humidity Range	Up to 95% RH, non-condensing	
Mounting Requirements	Requires two inch wide module slot, internal space only	
Supervisory Relay Contacts	Internally connected to panel monitoring circuit as required	
Optical		
Fiber Compatibility	62.5/125 or 50/125 multi-mode fiber with type ST connectors	
Launch Power	62.5/125 Fiber	25 μ w (-16 dBm)
	50/125 Fiber	10 μ w (-20 dBm)
Receiver Sensitivity	1 μ w (-30 dBm)	
Carrier Wavelength	850 nm	
Maximum Distance Point-to-Point	62.5/125 Fiber	10,000 ft (3 km)
	50/125 Fiber	6,500 ft (2 km)
Terminations	Terminal blocks for internal connections	
Equipment Compatibility		
Audio Controller Board	562-894 Revision L and above	
Master Telephone Board (for use with Master Telephone as audio source only, not compatible with firefighter's phone system)	562-991 Revision G and above	

NOTE: Refer to Installation/Operation Instructions 574-795 for additional information.

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