HelixNet Partyline

Optimum Flexibility and Performance

For Highly-Dynamic Production Communications

Clear-Com®
AN HME COMPANY

Flexible, scalable, and intelligent digital network partyline system platform for dynamic group communication

The HelixNet Partyline platform is powered by the groundbreaking IP-based I.V.Core Technology, which gives this system its unique characteristics. Not only can HelixNet operate over any standard shielded twisted-pair cable (microphone or CAT5/6), but all audio channels, program audio, and distributed power can run on a facility's standard IT network infrastructure via an Ethernet/LAN connection. This capability makes HelixNet cost-effective and easy to deploy for any size facility.

The HelixNet devices can be powered by Powerline modem, Power-over-Ethernet (PoE),* or a Universal AC wall adapter. By using a combination of power sources, up to 60 user devices can effectively be on the system simultaneously. Multiple systems may also be linked together over a fiber or Ethernet connection to support an even greater number of users.

The legendary "Clear-Com Sound" delivers superior, digital quality sound for a highly intelligible audio experience. Hardware auto-discovery, intuitive menu operations, and channel accessibility are also unique features that make system setup and maintenance effortless.

System Overview

MAIN STATION

HMS-4X Main Station
High density, four-channel digital network system.

USER DEVICES

HRM-4X Remote Station
Four-channel rack-mount system for talk and/or listen operations.

HKB-2X Speaker Station
Four-channel station for talking on two of any four assignable audio channels.

HBP-2X Digital Beltpack
Similar to a source assignment panel, the two-channel, full-duplex beltpack can access any two of the available four system channels.

OPTIONAL MODULES
(For Main Stations Only)

HLI-ET2 Ethernet Module
Dual LAN interface to connect to other HelixNet Main Stations.

HLI-FBS Fiber Module
Daisy-chain fiber interface to connect to other HelixNet Main Stations.

HLI-2W2 Two-wire Interface Module
Seamless interface between analog two-wire and digital systems.

HLI-4W2 Four-wire Interface Module
Interface connects system over four-wire audio paths, such as matrix ports, cameras, and telephone circuits.

ACCESSORIES

S-Mount
Durable housing for HelixNet Speaker Station.

*Third party PoE power source

The four-channel HMS-4X HelixNet Main Station offers four channels of full-duplex audio and program audio that can support a combination of user devices, like beltpacks, remote stations and speaker stations. Using optional linking and interface modules, Main Stations can further expand and extend connectivity to two- and four-wire audio systems or other HelixNet user devices.

MAIN STATION HIGHLIGHTS

High Channel Density. Up to 12 networked intercom channels and power for beltpacks or a combination of user devices can be transmitted over a single shielded twisted-pair cable (Ex. microphone, CAT5 or CAT6 cable).

No Rewiring Required. System designed to preserve investment by operating on existing infrastructure.

Single Cable Operation. Fewer cables save time and cost during setup and configuration.

No Hum. No Buzz. All-digital system offers immunity to electro-magnetic interference and ground loops.

High User Capacity. A single Main Station, offering four channels, can support up to 20 beltpacks over one twisted-pair cable, or a combination of HelixNet user devices. Main Stations can be connected over LAN or Fiber to support many user devices over a network.

Quick Startup. Get up-and-running fast and effortlessly with easy plug-and-go installation and hardware auto-discovery.

Seamless Linking. Main Stations share resources over a LAN or Fiber link so users can select local or remote partyline channels and program audio feeds. Optional two- or four-wire interface modules further extends connectivity to existing analog partyline or matrix intercoms.

Easy-to-Navigate Menu. Quick access to system settings and configuration for fast and painless setup.

Easy Updates. Apply firmware maintenance and upgrades easily via USB ports.

MAIN STATION FEATURES

Front Panel
- Remote Microphone Kill
- Stage Announce Out
- Line Status Indication
- Large Format OLED Displays
- Up to 10 Characters for User-defined Labels
- Talk and Call Keys
- Speaker and Program Level Controls
- Rotary Channel Level Controls
- USB-A and USB Micro-AB Ports for System Updates
- XLR Headset Connector
- Microphone and Headset On/Off Key

Back Panel
- Universal Power Connector
- GPIO – DB-25 (Four Relays and Four Opto Inputs)
- Hot Microphone Output
- Stage Announce (SA) Out
- Program Input
- XLR-3M and XLR-3F Powerline Intercom Ports
- Built-in Expansion Bays for Optional Interface and Linking

HRM-4X Remote Station

The four-channel HRM-4X HelixNet Remote Station communicates with the HelixNet Main Station and other connected user devices using digital Ethernet/IP technologies. The Remote Station receives audio data, control data and DC power via the same cable, or it can be locally powered via an external power supply or Power-over-Ethernet (PoE) connection.

REMOTE STATION HIGHLIGHTS

- **High Channel Density.** Up to 12 networked intercom channels and power for beltpacks can be transmitted over a single shielded twisted-pair cable (ex. microphone, CAT5 or CAT6 cable).

- **Flexible Power Options.** Remote Stations can be powered by a Powerline modem, Power-over-Ethernet (PoE)* or a universal AC/DC wall adapter.

- **No Rewiring Required.** System designed to preserve investment by operating on existing infrastructure.

- **Single Cable Operation.** Fewer cables save time and cost during setup and configuration.

- **No Hum. No Buzz.** All-digital system offers immunity to electro-magnetic interference and ground loops.

- **High User Capacity.** Remote Stations can be connected to Main Stations over microphone or Ethernet cables. With the use of a combination of power sources, up to 60 user devices can be on the same system.

- **Quick Startup.** Get up-and-running fast and effortlessly with easy plug-and-go installation and hardware auto-discovery.

- **Easy-to-Navigate Menu.** Quick access to system settings and configuration for fast and painless setup.

REMOTE STATION FEATURES

Front Panel
- Stage Announce Out
- Line and LAN Status Indicators
- Large Format OLED Displays
- Up to 10 Characters for User-defined Labels
- Talk and Call Keys
- Speaker and Program Level Controls
- USB-A Port for System Updates
- XLR Headset Connector
- Microphone and Headset On/Off Key

Back Panel
- AC/DC Power Connector
- Ethercon Ethernet Connector
- DB-9 (One Relay and One Opto Input + 4-Wire In and 4-Wire Out)
- Hot Microphone Output
- Stage Announce (SA) Out
- Program Input
- XLR-3M and XLR-3F Powerline Intercom Ports

*Third party PoE power source

HBP-2X Digital Beltpack

Delivering superb digital sound quality, the two-channel HBP-2X Digital Beltpack enables access to two of any four system channels over a single cable. Its rugged and ergonomic design offers utmost reliability and durability for the most demanding production environments.

BELTPACK HIGHLIGHTS

Channel Density. Similar to a source assignment panel, a single cable gives every connected beltpack the capacity to access all networked system channels.

High User Capacity. Up to 20 beltpacks over twisted-pair cables can connect to a single Main Station.

Selectable Channels. The full-duplex, two-channel beltpack can select up to two of the available system channels, each with individual level control.

Save Resources. Networked audio is distributed over a single shielded twisted-pair cable, reducing the number of cables to yield time and cost savings.

Passive Interconnection. Beltpacks can be set up in daisy-chain or star configurations without the need for active splitter boxes.

Clear-Com Sound. Legendary contoured audio frequency response provides maximum intelligibility and exceptional sound quality.

Efficient Administration. System configuration and firmware upgrades are centrally managed from the Main Station.

Intuitive Operations. Present logical channel labels on the high-contrast, 10-character OLED display.

Effortless Navigation. Optimally positioned buttons and volume knobs are easy to locate, identify and control on the beltpack.

Highly Durable. Fabricated from lightweight cast aluminum, the beltpack is able to endure the rigors of intensive applications.

Mounting Flexibility. Sturdy beltclip, rubber bumpons and integrated strap guide offer useful mounting options.

BELTPACK FEATURES

- Two Full-duplex Audio Channels
- Power and Audio over a Single Cable
- Separate Program Level Control
- User-facing Keyset Controls
- Recessed Level Rotary Knob Controls
- Pushbutton Menu Access
- Integrated Mounting Strap Guide
- Tabletop Resting Supports
- USB Micro-AB Port
- XLR Lock Release
- Cast Aluminum Alloy Case
- High-resolution, Large Format OLED Display (Up to 10 Characters for Unique Labels)
- Visual and Vibrating Call Alerts
- Ridge Guide for Tactile Navigation and Mechanical Protection
- XLR-4M Headset Jack (5-Pin Option)
- 2.5 mm TRS Headset Jack
- XLR-3F Intercom Line
- XLR-3M Intercom Pass-through (Daisy-chain)

HKB-2X Speaker Station

The four-channel HKB-2X HelixNet Speaker Station can receive at least four channels of intercom communications simultaneously over a shielded twisted-pair cable. It is also able to monitor all four and communicate on any two of those channels at any given time. The Speaker Station can be wall mounted into a 4-gang standard electrical box or in the optional S-Mount enclosure. The Speaker Station can be powered locally or by Power-over-Ethernet (PoE) connection.

Display Positions

Upward Tilt

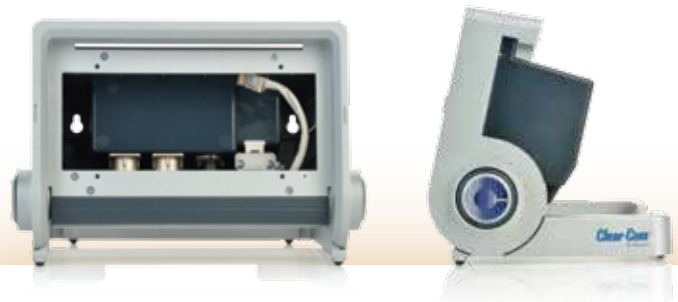Straight-forward

Downward Tilt

SPEAKER STATION FEATURES

- 4-Channel Digital Networked Partyline Station with Shift Key
- Large Format OLED Displays
- Up to 10 Characters for User-defined Labels
- Talk and Call Keys
- Speaker and Program Level Controls
- Fits 4-Gang Standard Electrical Wall Box (US ANSI/NEMA OS-1 Standard Size) or Optional S-Mount Enclosure
- Display Tilts Up and Down for Best Viewing

S-Mount

The S-Mount is a desktop or wall mounting kit for the HelixNet Speaker Station. The S-Mount is easily adjustable to different angles to suit user's requirements.
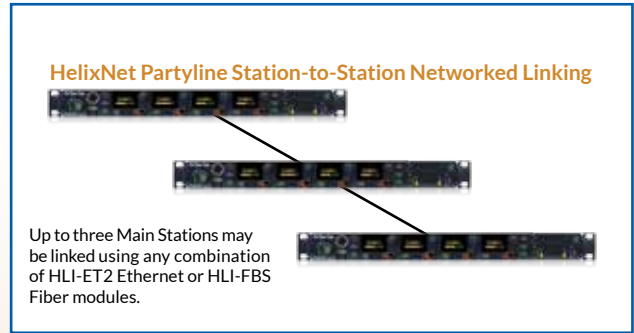
S-MOUNT FEATURES

- AC/DC Power Connector
- Ethercon Ethernet Connector
- XLR-3M and XLR-3F Powerline Intercom Ports
- Adjustable Rake for Best Viewing Options
- Anti-slip Feet
- Screw-holes for Easy Wall Mounting

Speaker Station sold separately

HelixNet Main Stations accept optional Linking and Interface modules, offering seamless linking over LAN or Fiber as well as connection to common two-wire and four-wire audio systems.

HelixNet Partyline Station-to-Station Networked Linking

Up to three Main Stations may be linked using any combination of HLI-ET2 Ethernet or HLI-FBS Fiber modules.

Linking Modules

HLI-ET2 ETHERNET MODULE

The HLI-ET2 Ethernet Linking Module provides a dual LAN interface to connect to other HelixNet Main Stations. Once connected, stations share partyline channels and program audio, and make them available to any station and beltpack on the linked system. All labels are transferred across the network automatically.

HLI-FBS FIBER MODULE

The HLI-FBS Fiber Linking Module provides a daisy-chain fiber interface to connect to other HelixNet Main Stations. With Ethernet Modules, stations share partyline channels and program audio, and make them available to any station and beltpack on the linked system. Fiber Modules can be mixed with Ethernet Modules in the same network.

Interface Modules

HLI-2W2 TWO-WIRE INTERFACE MODULE

The HLI-2W2 Interface Module enables two-channels of Clear-Com or RTS intercom to transparently interface with digital HelixNet intercom channels. This two-wire module preserves the wideband two-wire frequency response and is easily assignable to any of the HelixNet Main Station intercom channels.

HLI-4W2 FOUR-WIRE INTERFACE MODULE

The HLI-4W2 Interface Module provides an easy way to interface common four-wire audio paths such as matrix ports, cameras, and telephone circuits with a HelixNet Main Station. Each of the two ports employs both transformer and electrical balancing to ensure incoming and outgoing audio paths are free of hum and noise.

About Clear-Com®

Clear-Com, an HME company, is a trusted global provider of professional real-time communications solutions and services since 1968. We innovate market proven technologies that link people together through wired and wireless systems.

Clear-Com was first to market portable wired and wireless intercom systems for live performances. Since then, our history of technological advancements and innovations has delivered significant improvements to the way people collaborate in professional settings where real-time communication matters. For the markets we serve – broadcast, live performance, live events, sports, military, aerospace and government, our communication products have consistently met the demands for high quality audio, reliability, scalability and low latency, as well as addressed communication requirements of varying size and complexity. Our reputation in the industry is not only based on our product achievements, but also on our consistent level of customer engagement as well as continuous dedication in delivering the right solution for specialized applications and the expertise to make it work. Around the globe and across markets, Clear-Com innovations and solutions have received numerous awards and recognitions for our ingenuity and impact to customers.

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