

HKB-2X Speaker Station

Digital Partyline Solutions

Linking
People
Together



HKB-2X

Key Features and Benefits

Speaker Station

- Easy to use front panel with OLED displays
- Headset or hands-free support with speaker and mic
- (2) Keysets freely assignable to system channels
- Shift page for 4-channel
- Program Audio level control
- Display swivels allows optimal viewing angles

Connectivity

- (1) Powerline connection via XLR cables
- (1) Ethernet Network port with PoE

Mechanical

- 4-gang for flush mounting
- Optional S-MOUNT for desktop use

The HelixNet System

- Networked Intercom System
- Flexible Cabling
- 12 partyline channels. Expandable to 24 channels via optional license
- Program Audio distribution with independent level

Effortless Management

- Easy to use CCM browser configuration tool using optional HLI-ET2
- Fast front panel control and configuration
- Plug-and-go installation with hardware auto-discovery
- Central upgrades automatically managed from main station

HelixNet is a fully networked partyline intercom, supporting up to 24 channels and independent program audio over XLR, LAN or WAN.

Description

HelixNet's HKB-2X remote station is a 4-gang flush-mountable user station with four channels over 2 shift pages supported by the HMS-4X main station.

User Station

Innovative front panel user station provides two keysets assignable to any intercom channel to two pages the user can toggle between. The station's displays can be swiveled for optimal viewing angle. The user station is provisioned with a headset connection, gooseneck mic connector, loudspeaker and Program Audio level controls. HKB-2X can be mounted in a standard 4-gang electrical enclosure or the optional S-MOUNT multipurpose enclosure for portable and desktop applications.

Local and Central Management Options

HKB-2X can be added to a HelixNet system without central configuration or interruption. Front panel keysets include unique waterfall menu allowing tactile device configuration and channel assignments. Roles can be created and applied to one or multiple HKB-2X remotely or locally. Roles can be edited locally or centrally managed from the Core Configuration Manager (CCM).

Connectivity and Power Options

HKB-2X connects to HMS-4X main station over XLR Powerline or network to HMS-4X with HLI-ET2 Ethernet module. Power can be supplied to the HRM-4X over the XLR Powerline, locally with a supplied power supply with either connectivity method or Power-over-Ethernet (PoE) when connected over Ethernet.

Technical Specifications

Channels

Four intercom channels (Selectable)
Program Audio (Assignable from Main Station)

Connectors

XLR Powerline: (2) Powerline, each with 3 pin XLR-M/F

DC and Networked Audio:

- Pin 1: Ground
- Pin 2: +30V DC and Audio
- Pin 3: -30V DC and Audio

Headset: 4-pin XLR-M

Microphone Pre-amplifier

Headset Mic Impedance: 200 Ω (Dynamic)
Headset Mic Voltage: 1.7V (Electret selectable) Limiter: +23dB

Route to 4-wire output at 0dB out:
Mic Gain: 60dB (Dynamic), 45dB (Electret)
Frequency Response: 300Hz - 10 kHz \pm 3dB, contoured for intelligibility

Headphone Amplifier

Load Impedance: >32 Ω
Output Level: +12dBu before clipping
Sidetone: Configurable

Route from a 4-wire input at 0dBu in:
Max Gain: 0dB
Frequency Response: 40Hz - 10kHz \pm 3dB
Distortion: <0.1% THD @ 1kHz
Noise: -65dBu
Headphone Limiter: Configurable

Power

Powerline:
Equivalent to 3 beltpacks without local DC power
Equivalent to 1 beltpacks with local DC power
IEEE 802.3af-2003 - Class 0
PSE: 15.4 W DC max @ Power Source Requirement
PD: 12.95 W DC max @ Powered Device Draw
Powered from Powerline = 3 endpoints (10 max)

Powered from AC = 1 endpoints (10 max)

Local DC Power: 15W 48V DC

Environmental

32° - +113°F (0 - +45°C)
90% relative humidity

Dimensions

4.5 x 8.2 x 2.4 in (HxWxD)
(114 x 209 x 61 mm)

Weight

18.8 oz (0.53 kg)

Network Specifications

Network Protocols

Ethernet IPv4 - Unicast Audio and Control
mDNS - Multicast Device Discovery
Layer 3 routable with mDNS function limitations WavPack - Audio Codec

Network Ports

Unicast:

Port 80 TCP - System Management
Port 6001 TCP - System Management
Port 6001 UDP - Audio Streams

Multicast: Port 5353 UDP - mDNS, Names, Discovery, Linking
Optional for device names and linking

Network Parameters

Endpoint resource use: 1

Bandwidth:

300 (max) kbps from each active audio input to HMS
1200 (max) kbps from HMS to each endpoint

QoS tags:

DSCP=46, High Priority / Expedited Forwarding (EF)
Link-Local Default IP address range: 169.254.0.0/16

System reserved IP range: 10.0.0.0/8 for endpoints

Recommended Ethernet Switches

Managed Ethernet Switch - Layer 3
100/1000 Base-T ports for endpoints
1000 Base IP Trunks between switches

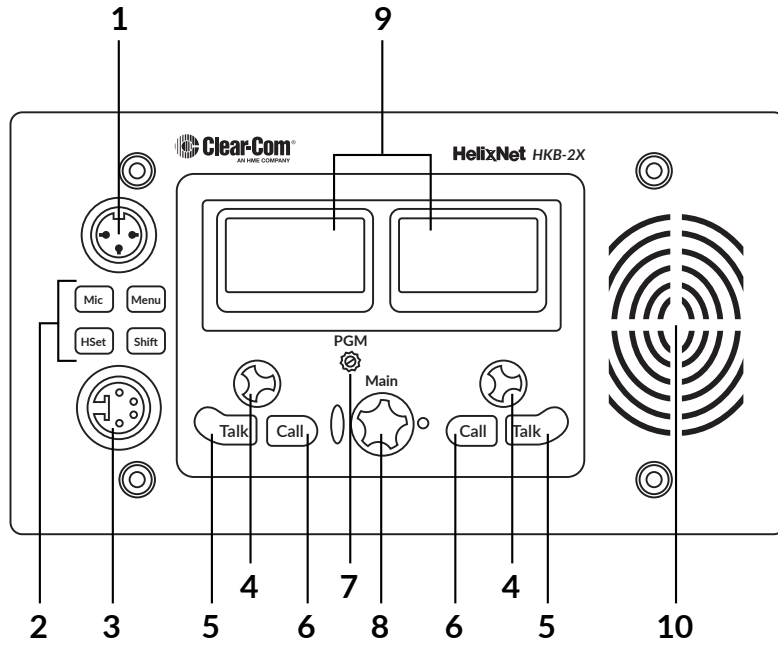
QoS configuration:

Energy Efficient Ethernet bypass option
IGMP Snooping bypass option

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HKB-2X Front



Legend

Front

1. Gooseneck microphone connector
2. Configuration keys
3. 4-pin XLR-M headset connector
4. Rotary volume controls
5. Talk keys
6. Call keys
7. Program audio level control
8. Speaker/Headphone rotary control and Speaker Mute
9. Tilt-adjustable display screens
10. Loudspeaker

Order Code

HKB-2X (includes): (4) 6-32 x 1/2" mounting screws (280038Z)

Optional Accessories (sold separately):
S-MOUNT Enclosure (S-MOUNT)
Wall adapter PSU 15W 48V DC (453G025)
Inline PSU 15W 48V DC (453G026)