

# KB-802GM-IM Remote Speaker Station

Industrial and Marine Analog Partyline Systems

Linking  
People  
Together



KB-802GM-IM



## Key Features and Benefits

- Selectable two-channel, full-duplex operation
- IP-20 environmental rating
- Asbestos-free in accordance with SOLAS Regulation II-I/3-5.2
- Marine Certification compliant with DNVGL-CG-0339 (2016)
- Microprocessor-controlled logic and switching
- Momentary/latching talk button
- Visual and audible call signaling, with bright LED indicator
- Balanced local program input with separate level control
- Internal controls for call signal tracking, mic latch disable, and other functions
- Use with headset or handset, with integral speaker for monitoring
- Mic jack for gooseneck mic plus VOX circuitry
- Optional 4-wire daughter boards provided additional flexibility
- Wall or console mount, or optional V-Box for portable or desktop use
- LED buttons for talk, listen, call, announce, link, all talk, or mic on.

Industrial and Marine products for use in harsh environments, certified in accordance with DNVL-CG-0339, with Compass Safety Distance conformity, and asbestos-free.

## Description

The KB-802GM-IM remote speaker station permits the user to select between two channels of partyline communications, with the ability to talk and/or listen on the selected channel. The user can listen via the integral speaker, or may use a headset or telephone-style handset - and can talk via a gooseneck mic, headset mic, a telephone handset, or a push-to-talk microphone.

## Operation

A switch allows the user to choose between the optional GM-9 or GM-18 microphone and the headset connector. The adjustable sensitivity, close-in VOX feature automatically detects the user's voice at the mic and dips the level of the integral speaker while increasing the gain of the microphone, performing in the opposite manner when listening. The potential for acoustic feedback is minimized while permitting natural conversation levels and dynamics.

Microprocessor-controlled logic and switching yields a feature-rich intercom station in a compact format. Electronic switching for the talk button, blue-color LED (on), amber color LED (off), permits momentary or latching operation. For call signaling, a bright LED lights when a call is activated on a connected intercom channel. A defeatable audible call signal, with level control, is also provided. Separate level controls are provided for intercom level and for balanced program input. A local program source may be fed to the station, allowing the user to monitor that source while remaining in contact on the intercom system. The balanced program input can also be used in conjunction with the stage-announce output of a main station to provide a paging interrupt, allowing paging at the KB station even if the intercom volume control is turned down.

## Mounting Options

The KB-802GM-IM may be wall or console mounted in a standard 4-gang electrical box, or may be mounted in the optional V-Box for desktop, surface-mount, NEMA enclosure, or portable applications. It may be used with the optional 4-wire daughter boards. The 4-wire board creates separate send and receive circuits, so that the station may be attached to fiber-optic lines or other audio routing systems with 4-wire connections. The stations are powered by the intercom line or by a local power supply when used with the optional 4-wire daughter board.

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## Technical Specifications

dBu is an absolute measurement. 0 dBu is referenced to 0.775 volts RMS

### Panel Microphone Input

**Input Type:** Electret  
**Input Impedance:**  $\geq 2K$   
**Mic Limiter Threshold:**  $-2dBu \pm 3dB$   
**Mic Limiter Range:**  $\geq 15dB$

### Headset Microphone Input

**Input Type:** Dynamic  
**Input Impedance:**  $\geq 1K$   
**Mic Limiter Threshold:**  $-2dBu \pm 3dB$   
**Mic Limiter Range:**  $\geq 15dB$

### Program Line Input

**Maximum Level before Clipping:**  $\geq 20dBu$   
**Input Impedance:**  $\geq 5K$

### Headset Output

**Load Impedance:**  $\geq 8$   
**Output Impedance:**  $\leq 25$   
**Output Limiter Threshold:**  $+5dBu \pm 3dB$   
**Maximum Output Level before Distortion:**  $\geq 17dBu$

### Speaker Output

**Load Impedance:**  $\geq 4$   
**Max Output Level before 1% Distortion:**  $20dBu \pm 2dBu$

### Partyline Output

**Off Noise:**  $< -74dBu$   
**Output Impedance:**  $> 10K$

### Partyline Input

**Crosstalk:**  $< -60dB$   
**Max level before Clipping :**  $\geq 12dBu$   
**Sidetone Null Capability:**  $> 25dB$

### Frequency Response

**Panel Mic - Partyline:**  $300 - 16KHz \pm 3dB$   
**Headset Mic - Partyline:**  $300 - 15KHz \pm 3dB$   
**Program Input - Headset Out:**  $200 - 18KHz \pm 3dB$   
**Program Input - Speaker Out:**  $200 - 18KHz \pm 3dB$   
**Partyline - Headset Out:**  $200 - 18KHz \pm 3dB$   
**Partyline - Speaker Out:**  $200 - 18KHz \pm 3dB$

### Max Distortion

**Panel Mic - Partyline:**  $\leq 0.5\%$   
**Headset Mic - Partyline:**  $\leq 0.5\%$   
**Program Input - Headset Out:**  $\leq 0.2\%$   
**Program Input - Speaker Out:**  $\leq 0.5\%$   
**Partyline - Headset Out:**  $\leq 0.2\%$   
**Partyline - Speaker Out:**  $\leq 0.5\%$

### Noise

**Panel Mic - Partyline:**  $< -65dBu$   
**Headset Mic - Partyline:**  $< -70dBu$   
**Program Input - Headset Out:**  $< -60dBu$   
**Program Input - Speaker Out:**  $< -60dBu$   
**Partyline - Headset Out:**  $< -50dBu$   
**Partyline - Speaker Out:**  $< -50dBu$

### Max Gain

**Panel Mic - Partyline:**  $\geq 37dB$   
**Headset Mic - Partyline:**  $41dB \pm 2dB$   
**Program Input - Headset Out:**  $\geq 18dB$   
**Program Input - Speaker Out:**  $\geq 24dB$   
**Partyline - Headset Out:**  $\geq 34dB$   
**Partyline - Speaker Out:**  $\geq 40dB$

### Power

**Input Voltage Range:** 20-30 VDC  
**Input Current (Idle):**  $\leq 90mA$   
**Input Current (Max):**  $\leq 110mA$

### Internal Adjustments and Connections

**Intercom:** Line Five terminal connector  
**Program Input Three terminal connector**  
**Option Switches:** Three DIP switches  
**Call Signal Jumper3:** Three sets of options jumpers  
**Call Alert Tone Level Control:** Level adjustment control

### Front Panel Connectors

**Panel Mic:** (1) 1/4 in. (0.64 cm) panel mounting jack  
**Headset:** (1) XLR-4M

### Front Panel Controls & Indicators

(1) Panel /headset mic switch  
(1) Program monitor level control  
(1) Sidetone null control  
(1) Talk button  
(1) Call button  
(1) Speaker ON-OFF switch  
(1) Channel select switch  
(1) Speaker volume control  
(1) VOX control  
(1) VOX indicator

### Environmental

32 - 122°F (0 - 50°C)

**Relative Humidity:** 0 - 96%, non-condensing  
**Vibration Frequency Range:** 2 - 13.2 Hz  
**Amplitude:** 1.0 mm  
**Peak Value Frequency Range:** 13.2 - 100 Hz,  
**Acceleration Amplitude:** 0.7 g

EMC: DNVGL-CG-0339 - Class B

Enclosure: IP-20

### Dimensions

4.5 x 8.25 x 1.75 (HxWxD)  
(114 x 210 x 44 mm)

### Weight

1.1 lbs (0.50 Kg)

## Certifications and Compliance

This device complies with part 15 of the FCC Rules.

This device complies with European Union CE Mark:

- Electromagnetic Compatibility Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- RoHS Directive 2011/65/EU
- Standards: EN 55032, EN 55024, EN 60950-1, EN 50581

This device complies with Maritime Certification:

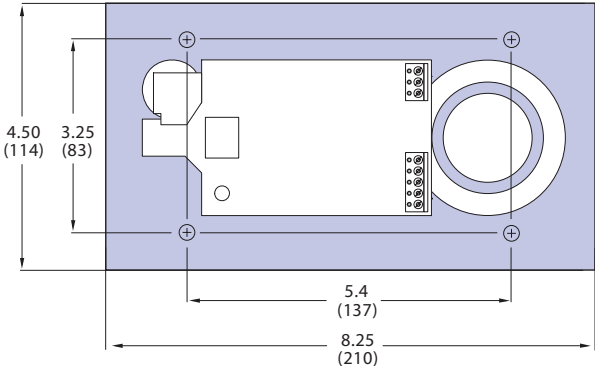
- Conformity with DNVGL-CG-0339 Edition November 2016
- Asbestos-free in accordance with SOLAS Regulation II-1/3-5.2
- Compass Safety Distance conformity per DNVGL-CG-0339 and IEC 60945



# KB-802GM-IM Remote Speaker Station

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## Rear View



## Order Code

KB-802GM-IM

## Top View

