

WIRELESS INTERCOM SYSTEMS

WIRELESS INTERCOM SYSTEMS

FLEXIBILITY

LIGHTWEIGHT

WIRELESS
PERFORMANCE



HME

Customer Driven



PRO 850

850



DX 200

200



DX 100

100

WIRELESS INTERCOM SYSTEMS



PRO850™ Wireless Intercom System

Especially designed for audio professionals, PRO850 provides everything you need for clear, reliable communications. Frequency agile with exceptional range, this UHF system is easily expanded for additional users. System configuration for your specific application is a cinch with PC850 Wizard or through the base station LCD display screen.



DX200™/DX200C™ Digital Wireless Intercom

Communication is easy, clear and secure with this digital, license-free 2.4 GHz system. Frequency hopping spread spectrum (FHSS) technology provides interference-free operations for up to 15 mobile users per base. The lightweight communicator operates for up to 20 hours on a rechargeable lithium-ion battery. Non-technical staff can easily use this system right out of the box. Interfacing is provided for two and



DX100™/DX100C™ Portable Digital Wireless

Get crystal-clear, two-way digital communications with this super compact, portable base station. Up to 15 users can speak to each other wirelessly. Better than walkie-talkies, you can communicate in hands-free mode and have private conversations on a secured channel. FHSS and encryption prevent people from eavesdropping. Base station can

SYSTEMS OVERVIEW

C O N T E N T S

COMMUNICATION



PRO850 is fully loaded with many cutting-edge capabilities so you'll have more operating power and flexibility.

PRO850

- Wireless Intercom System . .Pgs 4-7
- Frequency Band ChartPg 8
- Software with WizardPg 9
- Accessories/Specifications . .Pgs 16-19

System

LIGHTWEIGHT



four-wire intercom systems. ISO function allows mobile users to make stage announcements or communicate on a private channel. Mix and match two communicator models: all-in-one WH200 ComLink (DX200C) headset or BP200 belt pac (DX200) worn at the waist.

DX200/200C

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- Application DiagramsPg 12
- Accessories/Specifications . .Pgs 16-19

Intercom System

FLEXIBILITY



be powered with provided AC adapter, AA alkaline, rechargeable batteries or 12VDC automotive power. Mix and match two communicator models: all-in-one WH200 ComLink (DX100C) headset or BP200 belt pac (DX100) worn at the waist.

DX100/100C

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PRO850 Wireless Intercom System

GO THE DISTANCE IN WIRELESS PERFORMANCE

Base Station Highlights

Automatic frequency selection scans all available intermodulation-free frequency groups for best frequencies.

Frequency agility enables you to operate PRO850 within the 470-740 MHz UHF band. These synthesized frequencies can be selected in 25 kHz increments over each 18 MHz operational band; choose from 720 different frequencies and store your settings for future recall.

Up to 16 beltpacs can be used on an individual base station, 4 of which can be used in hands-free, full-duplex mode.

Expandable system enables up to 12 beltpacs to be used in hands-free, full-duplex mode with extra base stations.

User-friendly display screen on the base makes it easy to set up the system and obtain status information. Pull-down menus provide fast, easy access to all system features. Menus are organized by system configuration, status, audio-level monitoring and system information. Simple navigation buttons and multi-function rotary knob facilitate the setup.

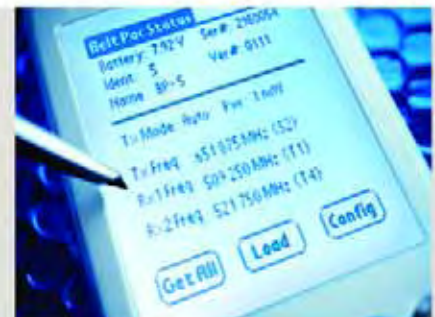
PC interface using PC850 Wizard lets you configure PRO850 and manage configuration files from the convenience of your PC via rear panel interface connectors.

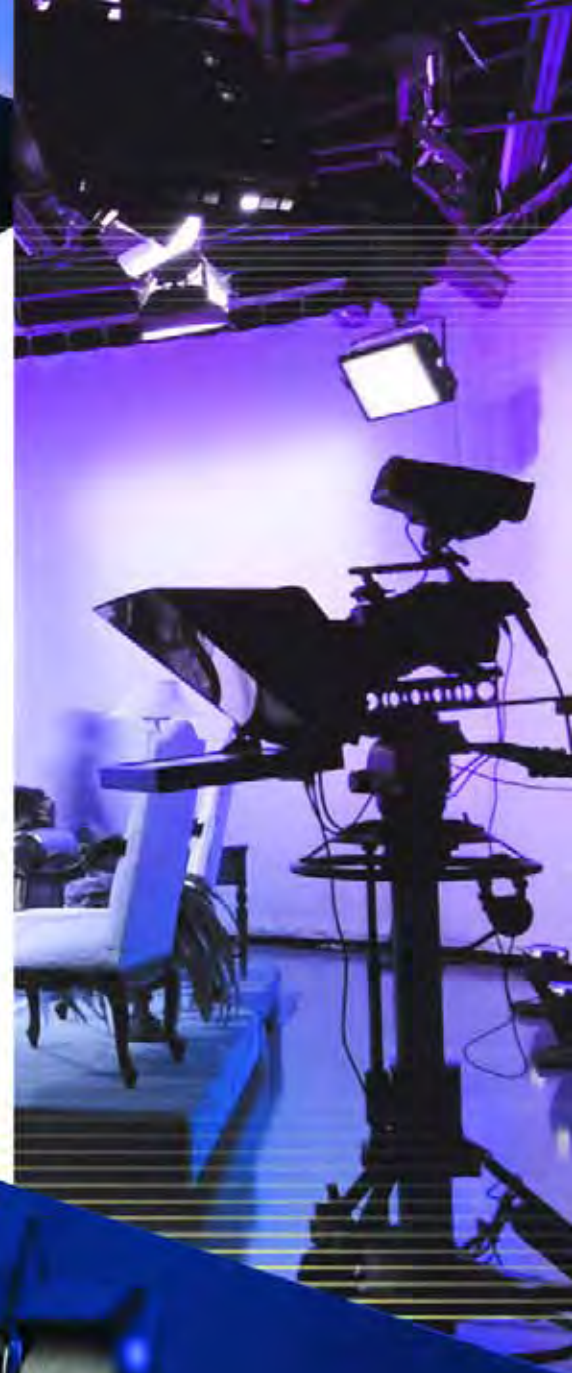
Alert and page relay closures allow you to remotely control external devices from the beltpac.

Audio digitally mixed and routed under user control allows any combination of inputs to be mixed and delivered to any output. These settings can be preset and saved to provide different configurations for different shows.

PRO850 Beltpac and PDA Interfacing

PDA 850 allows beltpac status to be checked and configuration set without returning the unit to the base station.





Wired intercom interface supports two hardwired intercom channels using 2-wire, 4-wire, or both simultaneously. PRO850 is compatible with RTS® and ClearCom® hard-wired intercom systems. Using the ISO+ mode gives you an additional 4-wire intercom interface by using AUX IN and AUX OUT connections. This feature makes your system operate as a three-channel intercom.

Remotely “unlatch” individual belt-pacs to stop a rogue belt-pac that’s left transmitting without having to locate the belt-pac.

Unparalleled frequency response enables full articulation and understanding.





PRO850 Wireless Intercom System

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Belpac Highlights

Automated belpac output power control helps optimize RF power. The base station automatically configures belpac settings and controls the four power levels for each belpac if selected, depending on its distance from the base. This eliminates base receiver overload and extends battery life.

Individual volume controls allow belpac users to adjust and mute volume. The MASTER and AUX volume controls provide push-to-mute function so you can temporarily mute a channel while keeping previous volume settings.



Low battery alert informs user via the headset and base that belpac batteries are low.

Channel lockout enables multiple belpac users to share the same operating frequency and automatically disable a belpac's ability to transmit if another user is transmitting on that frequency.

Belpac controls are configurable for multiple transmit modes. Separate talk buttons for each channel can be configured for "push-to-talk" or "push-to-enable" operation. Buttons not configured for transmitter control can be configured for party-line selection, paging, ISO, alert and call functions.





Headset mic auto-detection

automatically adapts to headsets with either electret or dynamic mics — making it easy to connect to all your current headsets.

Versatile headset connector

allows use of standard 4-pin male connector or field replaceable 4 or 5-pin female XLR connectors.

LED blackout mode

enables crew members to work on a darkened stage without telltale visible lights.

Dual-channel access

allows belt-pac users to choose from two hardwired intercom channels. Simultaneous dual-channel access is obtained using the optional field installable 2nd receiver module.



PRO850 Wireless Intercom System

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Frequency Band Chart

Each frequency band will support sixteen user defined frequencies

Pre-Programmed Base TX Frequency Bands (MHz)								
BAND 1/9			BAND 2/A			BAND 4/C		
490.250	490.500	491.250	508.250	508.500	509.250	544.250	544.500	545.250
491.750	496.250	496.500	509.750	514.250	514.500	545.750	550.250	550.500
497.250	497.750	502.250	515.250	515.750	520.250	551.250	551.750	556.250
502.500	503.250	503.750	520.500	521.250	521.750	556.500	557.250	557.750

Pre-Programmed Beltpac TX Frequency Bands (MHz)								
BAND 1/9			BAND 2/A			BAND 4/C		
633.375	633.250	633.500	651.375	651.250	651.500	687.375	687.250	687.500
634.000	633.875	634.125	652.000	651.875	652.125	688.000	687.875	688.125
635.125	635.000	635.250	653.125	653.000	653.250	689.125	689.000	689.250
637.000	636.875	637.125	655.000	654.875	655.125	691.000	690.875	691.125
637.375	637.250	637.500	655.375	655.250	655.500	691.375	691.250	691.500
638.375	638.250	638.500	656.375	656.250	656.500	692.375	692.250	692.500
641.125	641.000	641.250	659.125	659.000	659.250	695.125	695.000	695.250
643.125	643.000	643.250	661.125	661.000	661.250	697.125	697.000	697.250
645.750	645.625	645.875	663.750	663.625	663.875	699.750	699.625	699.875
646.250	646.125	646.375	664.250	664.125	664.375	700.250	700.125	700.375
647.000	646.875	647.125	665.000	664.875	665.125	701.000	700.875	701.125
648.625	648.500	648.750	666.625	666.500	666.750	702.625	702.500	702.750



PC850 Software with Wizard

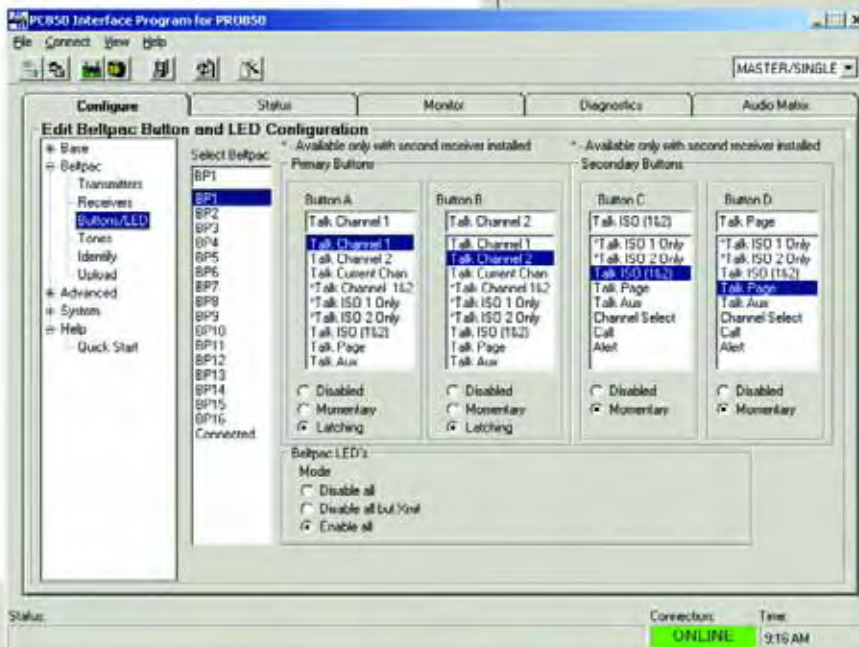
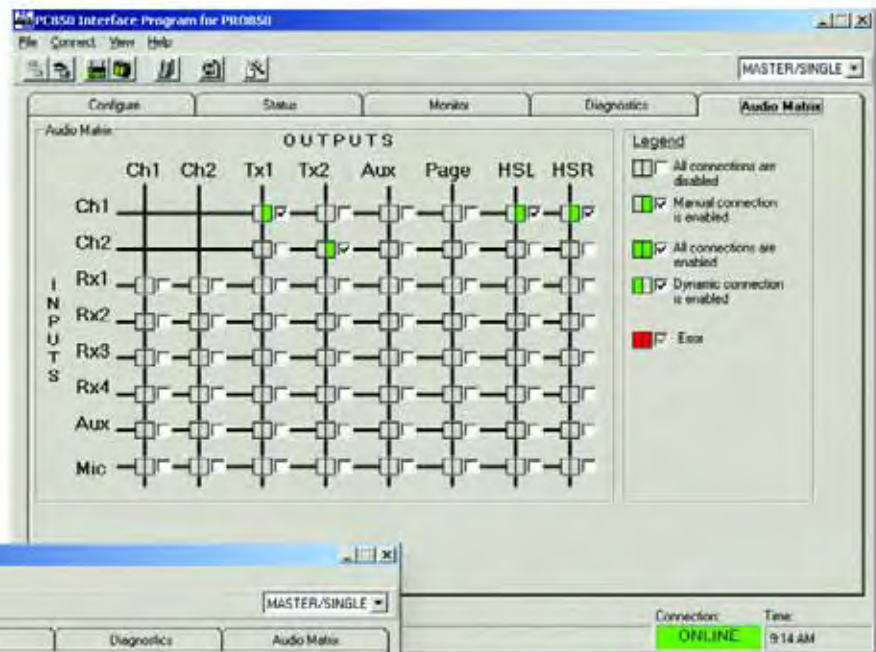
PC850 Software makes configuring the PRO850 for your specific application fast and easy. PC850 features a setup “wizard” that efficiently guides you through

the system configuration and setup process. The wizard also features help buttons on each screen that link to the appropriate sections of the online manual.

Additionally, PC850 lets you configure and monitor the PRO850 online or off — making it convenient for you to work at a remote location.

PC850 Audio Matrix Screen

Easily monitor and modify audio connections within the PRO850 base station by using this screen.



PC850 Beltpac Button and LED Configuration Screen

Use this screen to easily assign functions to the four belt pac buttons and set LED operating mode.



DX200/DX200C Digital Wireless Intercom S

DIGITAL COMMUNICATIONS JUST GOT SMARTER

Base Station Highlights

Digital 2.4 GHz license-free operation in the Industrial, Scientific and Medical frequency band gives you exceptionally clear sound without licensing costs. You won't have to contend with intermodulation squelch issues commonly associated with systems operating in the crowded VHF bands.

Up to 15 communicators can be assigned to each base station, 4 of which can be used in hands-free, full-duplex mode.

Digital encryption and FHSS technology prevent unauthorized personnel from hearing or interrupting your communication.

Dual slot diversity transmits the audio signal twice — at different times and hop frequencies — and locates the strongest signal to ensure clear, concise, interference-free communication.

Vertical and horizontal diversity antennas are especially designed to prevent dropouts and provide the strongest audio signal possible.



Wired intercom interface

supports one hardwired intercom channel using 2-wire, 4-wire, or both simultaneously. DX200/DX200C is compatible with RTS and ClearCom 2-wire intercom systems. ISO+ mode gives you an additional 4-wire intercom interface by using the AUX IN and AUX OUT connections — making your system operate as a 2-channel intercom.



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ystem

UP TO 16 BELTPACS



Expandable system enables up to 16 beltpacs to be used in hands-free, full-duplex mode with extra base stations.

Two power source options give you more flexibility in powering the base. Choose between a supplied AC adapter or an external DC source such as the vehicle electrical system for rack mounting in an ENG van.

Remotely “unlatch” communicators from transmitting at the base to stop a rogue communicator that’s been left transmitting without having to locate the beltpac.

Headset interface allows the stationary base station operator direct access to the IC channel, AUX IN/OUT as well as beltpacs.



Clear, Digital Communications

With the 2.4 GHz DX200 Digital Wireless System, you’ll get exceptional sound clarity and secure, interference-free communications.

DX200/DX200C Digital Wireless Intercom System

DIGITAL COMMUNICATIONS JUST GOT SMARTER

DX 200



DX200C

This system comes with the BS200 base, WH200 ComLink all-in-one headset and other standard components.

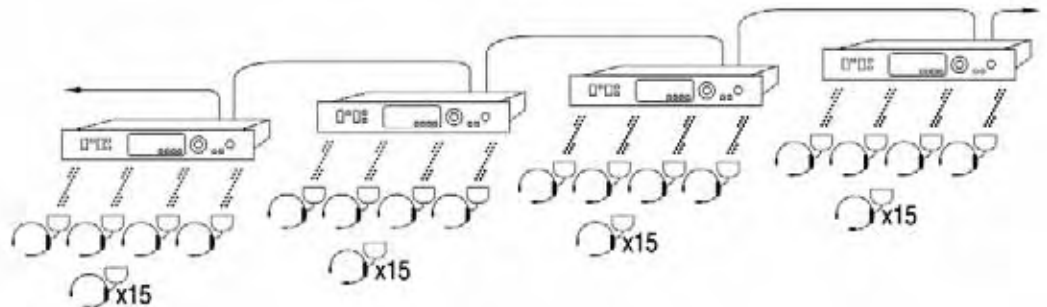


DX200

This system comes with the BS200 base, BP200 belt-pac and your choice of plug-in headset and other standard components.

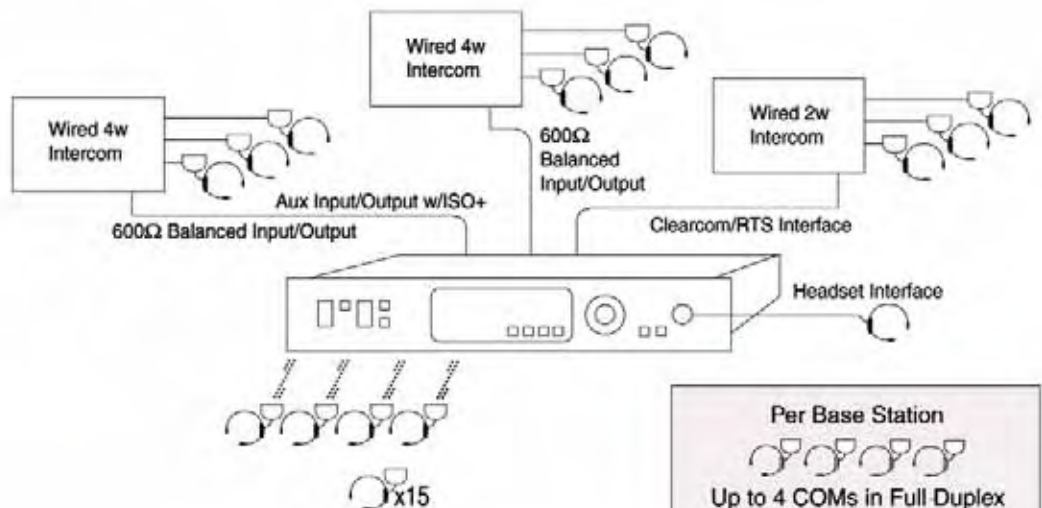
Daisy-Chain Multiple Systems

You can easily daisy-chain two or more base stations to expand the number of communicator users for applications with larger crews.



Configuration for Two-Channel Operation

This configuration enables the DX200/200C to be used like a two-channel intercom system by using the ISO+ feature.



Per Base Station

Up to 4 COMs in Full Duplex (Talk and listen at the same time)

Up to 15 COMs can be used





Communicator Highlights

Two communicator models let you mix and match the WH200 ComLink all-in-one, wireless headset (DX200C) or the BP200 belt pac (DX200) and your choice of plug-in headset.

Internal antennas are housed inside the communicator for extra durability.

Wireless ISO allows all mobile users to converse with each other on the same base station. ISO+ enables mobile users to communicate with those on equipment connected to the AUX OUT connector.

User-friendly light indicators and simple controls make the communicator perfect for fast, convenient communications.

Rechargeable lithium-ion batteries provide 20 hours of communicator operation with each charge.

Voice prompts inform users of status changes through the headset, such as "change battery" or "out of range."

Party line communication allows up to four communicators and the base station headset user to simultaneously converse with each other in hands-free, full-duplex mode.

Super compact design makes the communicators the industry's lightest. They are ergonomically designed with sealed controls for easy, reliable operation.

Four-port fast battery charger charges batteries in less than 3 hours.





System Highlights

Flexible battery-powered operation lets you power your base four different ways: six 1.5V AA batteries, optional rechargeable BAT850 battery, 12VDC automotive adapter or the provided 100/240VAC power supply.

Portable, compact design makes the DX100/DX100C ideal for mobile field applications.

Up to 15 communicators can be assigned to each base station, 4 of which can be used in hands-free, full-duplex mode.

Digital frequency hopping spread spectrum with encryption secures communications to prevent eavesdropping.

Power outage backup feature enables uninterrupted communication in the event of power loss.

2.4 GHz license-free operation is approved for worldwide use; no need to coordinate frequency operation with other wireless systems.



MB100 Base Station



Voice prompts inform users of status changes through the headset, such as "change battery" or "out of range."

Two communicator models let you mix and match the WH200 ComLink all-in-one, wireless headset or the BP200 belt pac and your choice of plug-in headset.

Dual slot diversity and diversity antennas provide the strongest signal possible for clear, seamless and uninterrupted conversations.

Remotely "unlatch" communicator transmitters to help you quickly locate and stop a communicator that's been unintentionally left transmitting — from the convenience of your base station. This is very helpful if a remote user removes his communicator and forgets to turn it off.



DX100C

This system comes with the MB100 base, WH200 ComLink all-in-one headset and other standard components.



DX100

This system comes with the MB100 base, BP200 belt pac and your choice of plug-in headset and other standard components.

WIRELESS INTERCOM SYSTEMS



HS9-2 Headset* (PRO850)
HS12 Headset** (DX Series)

Super lightweight, single-muff headset with omni-directional electret microphone is worn on either ear. Flexible microphone boom ensures optimal sound clarity. Adjustable stainless steel headband provides stable, comfortable fit while ensuring secure positioning of microphone boom.



HS14-4F Headset* (PRO850)
HS14 Headset** (DX Series)

With a noise-canceling electret microphone, this "over-the-ear" single-muff headset blocks out background noise and keeps conversations clear and audible. Adjustable headband provides unparalleled comfort.



HS14D-4F Headset* (PRO850)
HS14D Headset** (DX Series)

Your conversations will be loud and clear even in noisy environments with this "over-the-ear" dual-muff headset with noise-canceling electret microphone. Adjustable headband provides unparalleled comfort.



HS20-2 Headset* (PRO850)
HS20-3 Headset** (DX Series)

This dual-muff, lightweight headset with omni-directional electret microphone is comfortable but still provides ambient noise reduction. The contoured headband fits behind the head. Flexible boom allows mic to be optimally positioned.



HS4-3 Earpiece & Lapel Mic** (DX Series)

This earpiece and omni-directional electret lapel microphone combo is perfect for more discreet applications where clear, reliable communication is critical, but needs to be less conspicuous.

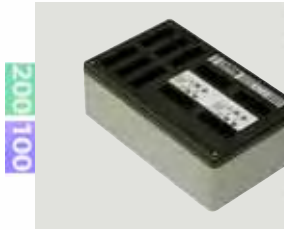


AC850 Battery Charger (PRO850/DX Series)

This four-port unit charges BAT850 NiMH Battery for MB100 base or BP850 beltpac in less than 3 hours. Charger comes with a 100/240 VAC power supply.

*XLR-4F Connector
**Mini-DIN Connector

ACCESSORIES



AC40A Battery Charger (DX Series)

Up to four BAT40 batteries for BP200 beltpac and WH200 ComLink can be charged simultaneously in less than 3 hours. Charger comes with a 100/240 VAC power supply.



BAT850 Rechargeable Battery (PRO850/DX Series)

A more cost-effective alternative to using six 1.5V AA alkaline batteries, the 7.2V 2300mAh NiMH battery provides 10 hours of reliable, uninterrupted operation for MB100 base or up to 20 hours for BP850 beltpac.



BAT40 Rechargeable Battery (DX Series)

Lithium-ion battery provides 20 hours of push-to-talk operation when used with BP200 beltpac or WH200 ComLink.



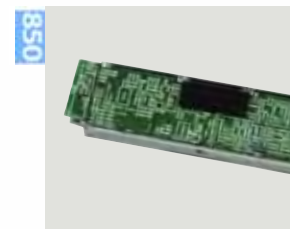
MD-XLR Headset Adapters (DX Series)

These adapters enable headsets with dynamic mics and XLR connectors to interface with BP200 belt-pacs. An active built-in circuit provides gain, impedance matching and DC isolation. XLR Adapters interface with 4P male, 4P female or 5P male headset connectors.



Antenna Extension Cables (DX Series)

These 6' or 30' cables enhance the RF signal of DX bases installed in demanding applications. The 6' cable is ideal when antennas are panel-mounted onto an equipment rack. The 30' cable is best for applications that need remote coverage.



PRO850 Beltpac 2nd Receiver Module (PRO850)

This 2nd Receiver Module Kit allows simultaneous dual-channel access and can be installed in the field.

WIRELESS INTERCOM SYSTEMS

System Specifications			
	PRO850	DX200/DX200C	DX100/DX100C
RF Frequency Range	470-608 MHz, 614-740 MHz in 18 MHz TX and RX Bands	2400-2483.5 MHz	2400-2483.5 MHz
Frequency Response	50 Hz to 10 kHz	200 Hz to 3.5 kHz	200 Hz to 3.5 kHz
Distortion	<1% @ Maximum Deviation	<2%	<2%
RF Sensitivity	<1 μ V for 20dB SINAD	<-90dBm with 10 ⁻³ BER	<-90dBm with 10 ⁻³ BER
Temperature Range	-20 to 55°C (-4 to 131°F) Typ.	-20 to 55°C (-4 to 131°F) Typ.	-20 to 55°C (-4 to 131°F) Typ.
Transmit/Receive Type	720 Synthesized, 25 kHz Channel Steps	Frequency Hopping Spread Spectrum (FHSS)	Frequency Hopping Spread Spectrum (FHSS)
Modulation Type	FM	Gaussian Filtered FSK, TDMA	Gaussian Filtered FSK, TDMA
Mic Input	Auto-Detect, Low Impedance Dynamic or Electret	Electret	Electret

Communicator Specifications			
	BP850	BP200 for DX200/DX100	WH200 for DX100C/DX200C
Transmit Power	100,50,10 or 1 mW Configurable	100 mW Burst	100 mW Burst
Antenna	Flexible ¼-Wave (Field-Replaceable)	Internal, Dual Diversity	Internal
Headset Connector	XLR-4M (Optional XLR-4F, -5F Field Installable)	Mini-DIN	N/A
Headset Output	200 mW into 50 Ω	160 mW into 32 Ω , Capable of Driving 16 to 32 Ω	160 mW into 32 Ω
Auxiliary Input	Connector: ⅛" Miniature Phone Jack Impedance: 8k Ω , Input Level: 100 mV Overrides Optional 2nd Receiver if Installed	N/A	N/A
Size	5.75" x 4.38" x 2.31" (14.6cm x 11.13cm x 5.87cm)	3.4" x 2.6" x 1.5" (8.64cm x 6.60cm x 3.81cm)	N/A
Weight	16 oz (0.45 kg) with Batteries	7.4 oz (0.21 kg) with Battery & Pouch	5.7 oz (0.16 kg) with Battery
Battery Requirements	Six "AA" Alkaline Cells (Optional NiMH)	One Lithium-Ion Rechargeable	One Lithium-Ion Rechargeable
Battery Life Alkaline or 2100 mAh NiMH	Auto-Pwr Mode: 20 Hrs @ 50 mW Continuous: 17 Hrs	Hands-Free: Up to 14 Hrs PTT: Up to 20 Hrs	Hands-Free: Up to 14 Hrs PTT: Up to 20 Hrs
FCC Acceptance	Part 74	Part 15	Part 15

SPECIFICATIONS

Base Station Specifications			
	BS850	BS200	MB100
Transmit Power	240,100,10 or 1 mW Configurable	100 mW Burst	100 mW Burst
TX & RX Antenna	¼-Wave, BNC Connector	½-Wave, Dual Diversity Dipole	½-Wave, Dual Diversity Dipole
4-Wire I/O	RJ45, 600Ω Balanced, Level Adjustable, Simultaneous Operation with 2-Wire	RJ45, 600Ω Balanced, Level Adjustable, Simultaneous Operation with 2-Wire	N/A
2-Wire I/O	XLR-3F, Externally-Switchable RTS or ClearCom Mode, 200Ω, Level Adjustable, Null Adjustable	XLR-3F & 3M, Externally-Switchable RTS or ClearCom Mode, 200Ω, Null Adjustable	N/A
Auxiliary Input	XLR-3F/¼" Phone Combo Jack, 600Ω Balanced, Level Adjustable	XLR-3F/¼" Phone Combo Jack, 600Ω Balanced, Level Adjustable	N/A
Auxiliary Output	XLR-3M, 600Ω Balanced, Level Adjustable	XLR-3M, 600Ω Balanced, Level Adjustable	N/A
Page Output	XLR-3M, 600Ω Balanced, Level Adjustable	N/A	N/A
Page & Alert Relay	2 Four-Pin Phoenix, 2A @ 30 VDC Max	N/A	N/A
Headset Connector	XLR-4M (Optional XLR-5F)	Mini-DIN	N/A
Headset Output	Stereo - 160 mW per Side, Mono - 250 mW	250 mW into 32Ω	N/A
Size	19" x 1.72" x 14.25" (1-RU) (48.26cm x 4.37cm x 36.19cm)	19" x 1.72" x 13.50" (1-RU) (48.26cm x 4.37cm x 34.29cm)	10.2" x 6.45" x 3.33" (25.91cm x 16.38cm x 8.46cm)
Weight	10.66 lb (4.84 kg) with 2 TX and 4 RX Modules	9.2 lb (4.17 kg)	2.35 lb (1.07 kg) with Alkaline Batteries
Power Requirements	100-240 VAC, 50-60 Hz or 12-14 VDC	100-240 VAC, 50-60 Hz or 12-14 VDC	100-240 VAC, 50-60 Hz or 12-14 VDC or Six "AA" Alkaline Cells (NiMH Optional)
Battery Life	N/A	N/A	Up to 10 Hrs
FCC Acceptance	Part 74	Part 15	Part 15

WIRELESS INTERCOM SYSTEMS

HME HISTORY

A privately held company, HME has continued to be a leading provider of innovative pro audio products for nearly three decades. HME developed the first wireless intercom system for pro audio in 1979 and continues to introduce exciting, cutting-edge wireless intercoms that enhance communications, increase productivity and facilitate creativity for virtually any application. Our comprehensive line of wireless intercoms are designed with you in mind — helping you choose the right system for the best performance possible.



Customer Driven

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