

E-200 Series

INTERCOM SYSTEM



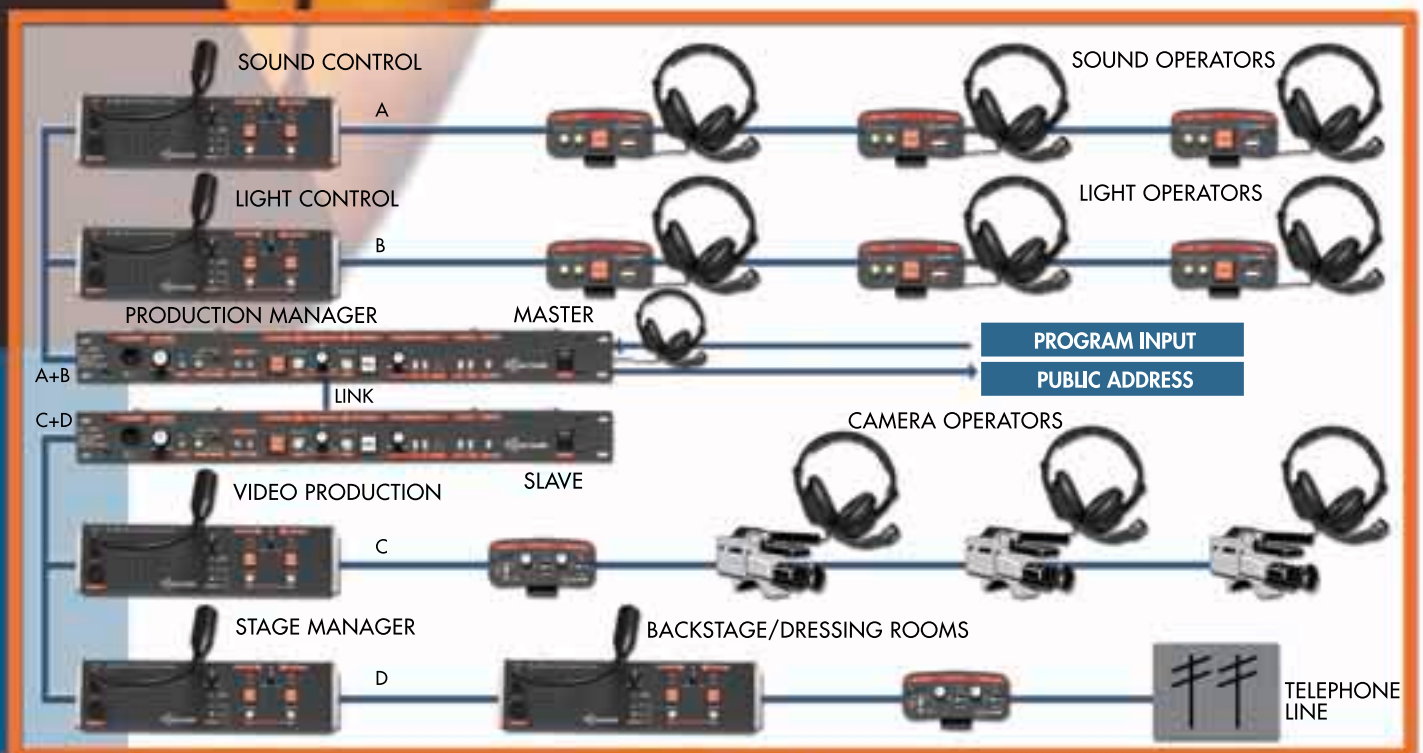
- EF-200 DUAL CHANNEL MASTER STATION
- EM-201 SINGLE CHANNEL BELTPACK
- ES-200 DUAL CHANNEL DESK STATION
- 4W2-200 UNIVERSAL 4W/2W INTERFACE
- AM-100 DOUBLE MUFF HEADSET
- AM-100/2 SINGLE MUFF HEADSET



E-200 Series

INTERCOM SYSTEM

- Intercom System, cable based, ESPIRAL E-100 and CLEAR-COM[®] compatible.
- Simultaneous audible and visual auto-pulsed CALL signalling.
- LINK connections permits Multichannel System design by using a unique Master Station model.
- Novel internal Battery operation permits short-time communications in emergency situations.
- Global Mics-off and Buzzer-off mute systems for quiet room operation.
- System can operate up to 60 belpacks from Master Unit.
- Master Unit programmability: program interrupt, channel link, remote assigns, etc.
- Mic P.A. output with uncommitted relay connections.
- 12-30 VDC System Operation, enables field cinema portability.
- The Series incorporates an universal 2 to 4 wire 4W2-200, meaning more compatibility.



APPLICATION EXAMPLE



ES-200 DUAL CHANNEL DESK STATION

- The new ALTAIR E-200 SERIES add more features to our popular Espiral E-100 Series, maintaining compatibility. All the components in the system incorporate a microcontroller to implement different tasks as Mic Killer, Remote all Buzzer switch-off, Mic Switch Latch or Push To Talk, Program Interrupt, etc.
- Remote All Mic switch-off helps the operator to maintain a lower noise conversation in noisy environments. Also implemented is the remote All Buzzers switch-off feature to avoid undesired audible CALL signalling during performances.
- The Master Station Unit powers all the System components and incorporates new special features as System Expandability or Battery Operation.
- System Expandability permits creating a multichannel (4, 6, or more channels) Intercom System by using more Master Stations in a daisy chain arrangement. This feature enables freedom in the System design and in-site future upgrades. Rental companies can benefit from lower component inventories.
- Our novel internal Battery operation permits short-time communications in emergency no Power difficult situations.
- Beltpack case design has been modified, turning into a more compact size, and robust, metallic oval shape.



DUAL CHANNEL MASTER STATION EF-200

This unit incorporates an internal, worldwide voltage operation power supply that powers all the system. In case of a short circuit on any point of the line, the unit shuts down with automatic and instantaneous reset.

Separate dual channels are provided with independent TALK and listen A-B balance. Link A-B switch enables line B to be joined to line A when required. A Program Input to adapt balanced Mic and Line levels is provided with assign and volume controls. The headset microphone signal is available to drive P.A. systems. Relay contacts are provided that follows the P.A. key action, helping the installer to automate multiple tasks as Tally, switching speakers, cue lights...

FEATURES

- 1 unit height, Dual channel, 50 - 60 Beltpack capability.
- Program Input (Mic/Line) with volume control and CHA/CHB Send switches.
- Mic balanced output for Paging.
- Remote All Mic-Off (Mic-Kill) and all Buzzers-Off (Buzz-Kill) switches to both channels.
- Dual Call/Talk switches (one per channel)+A/B listen balance and volume controls.
- Link (A+B) Switch and Slave Link features.
- Multichannel operation by Master-Slave output Link connectors.
- Link connectors for multichannel operation to another EF-200 Master Stations. This enables the use of one only Headset sharing all the functions, as the System was a 4, 6, 8, ... channel Station.
- Internal Battery operation enabling short time emergency communications on Power dropouts.
- Relay contacts available NO/NC for multipurpose remote control, enabling Tally, radio station PTT switching, etc.
- Internal configuration Presets: Mic gain, Buzz level, Phantom supply, program interrupt, relay activation, etc.
- 200 Ohm System Line Impedance, compatible with Espiral and another Industry Standard Intercoms.

The ES-200 is powered from the Master Unit and can be used as Dual channel or Single channel desk, wall or rack mounted station. Although the unit incorporates its own Panel Mic and loudspeaker, a standard headset connector is fitted for private conversations.

FEATURES

- Speaker/Gooseneck Dual channel desk/wall Station.
- Headset connection with automatic Mic and loudspeaker disabling.
- Dual Mic On/Off switch (push to Talk and/or latching action) with indication led lamp.
- Dual Call A/B switches with high visibility light.
- Listen Balance A/B.
- Remote Buzzer-Off (Buzz-Kill) and Mic-Off (Mic-Kill) operation.
- 1 Watt Speaker power.
- Microphone Limiter for comfortable communication.
- Programmable functions: Remote Speaker-On, Remote Mic-On, Buzzer-off at start-up, etc.



EM-201 SINGLE CHANNEL BELTPACK

The Single Channel Beltpack unit was designed for intensive use in portable applications. An unbreakable plastic belt clip enables easy and secure suitability. Call signalling is Dual, visual and audible for improving adaptability. The unit can be configured for dynamic or electret microphones enabling the use of different types of headsets and hands-free earpieces in the market.

FEATURES

- Metallic (Aluminium) low weight box. Oval shape.
- Plastic Belt Clip.
- Mic On/Off push switch (push to Talk and/or latching action) with indication led lamp.
- Remote Mic-Off (Mic-Kill) operation.
- Buzzer on Call with On/Off push switch and indication led lamp.
- Remote Buzzer-Off (Buzz-Kill) operation
- Large Call On/Off switch with high visibility light.
- Microphone Compressor-Limiter
- Internal configuration Presets: Mic gain, Phantom voltage, Buzz level, etc.



4W2-200 UNIVERSAL 4W/2W INTERFACE

This single channel unit converts the bi-directional Intercom line, to unidirectional Input and Output signals. Wide range level mic or line signals can be introduced to the Intercom System. Output signal from the intercom line is easily adjustable to adapt for external operation as recording, post-production, P.A., etc. The unit can be used alternatively to interface all the Intercom system with the telephone line.

FEATURES

- Powered from the Intercom line.
- Converts 2 wire Intercom signals to unidirectional IN/OUT 4 wire signals.
- Allows ease interfacing to camera 4 Wire Intercom Systems, and another non-compatible systems.
- Wide range in/out adjustments enables interfacing to many different Audio Systems (Mixers, page amplifiers, etc).
- Interfaces to the Telephone line, incorporating HOLD switch, buzzer- ring and line activity led.
- Input and Output signals are transformer balanced to guarantee galvanic isolation and EMI protection from external connected equipment.

E-200 Series

INTERCOM SYSTEM



EF-200



EM-201



4W2-200



ES-200

TECHNICAL SPECIFICATIONS

INTERCOM LINE	
Impedance	220Ω AC/4700Ω DC
Nominal/max level	-10dBu/+3dBu
Frequency response	100hz - 10 Khz (-3dB)
SYSTEM SPECS	
Voltage operation	+12 a +30 VDC
Dynamic range	80dB
Bringing Impedance	>20 KΩ @ 1Khz
Side-tone Cancellation	Adjustable 0-30 dB @ 1Khz
Microphone limiter	Range: 28dB
Maximum cable length	500-2.000mts. Depends on installation
Recommended wire type	Shielded mic cable: 2 x 0,30mm ²
Call signal	+2,8mA/11 VDC
Call threshold	3 VDC
Remote mic-off	Power Interruption: 100ms
Remote buzz-off	10hz/800 mVp
PREAMPLIFIER	
Microphone type	Dynamic or electret/ dynamic only on ES-200
Input impedance	4k7Ω
Nominal/max level	-45dBu (H)/-20dBu(L)
Limiter range	28dB
Presence filter	+6dB @ 4700hz
Phantom voltage	+9 VDC (internal preset)
Microphone selection (ES-200)	Automatic, headset priority
HEADSET AMPLIFIER	
Impedance	200Ω (nom), 2KΩ max
Maximum level	20Vpp (200Ω)
Output power	250mW (200Ω)
Frequency response	250hz - 15Khz
Residual noise	-100dBu (all mic-off)
LOUDSPEAKER AMPLIFIER (ES-200)	
Impedance	16Ω
Output power	1,25 Watt
Loudspeaker selection	Automatic, headset priority
P.A. OUT	
Type	Balanced by XLR
Output Impedance	100 ohm
Output level	+4dBu (nom)/+8dBu (max)
PROGRAM INPUT	
Type	Balanced by XLR
Impedance (line/mic)	40KΩ/2KΩ
Input level	Mic: adjustable -15dBu to -45dBu Line: adjustable +10dBu to -20dBu

P.A. RELAY (EF-200)	
Connections	1NO+1NC circuit/JACK 1/4
Contacts	0,5 Amp @ 125 VAC/1 Amp @ 30VDC
Relay activation	By PA, mic-on A/B, or buzzer mute keys
MULTICHANNEL OPERATION	
System cabling	Master-slave link with standard RJ-45 (8)
Channels	Maximum recommended: 10 (5 stations)
INTERFACE 4W2-200	
3,4 Wire mode, Z/nom. level	Rx: >2KΩ /-45dBu to +10dBu Tx: <600Ω/+10dBu to -60dBu Zterm: adjustable 220Ω to 1k2Ω
2 Wire mode (Telephone line)	
HEADSET AM-100, AM-100/2	
Microphone	Dynamic, cardioid, 200Ω
Headphone	Dynamic, 400Ω each muff
Termination	XLR-4.1,5mts. steel cable
POWER SUPPLY	
Mains Voltage	90-264 VAC/50-60hz/50 VA max
Power Supply EF-200	24 VDC nominal/1,8 Amps
Protections	Short-circuit on the line, overheat
DC current ES-200	40 ma/120 ma
DC current EM-201, 4W2-200	30 ma/60 ma
EMERGENCY SUPPLY	
Battery type	Alkaline 9 V. (rear panel compartment)
Emergency system operation	12 VDC/500 mA max
Emergency Intervals	10 minutes to auto switch-off
Estimate battery life	1 hour (4 belt-pack system)
ACCESSORIES	
Program Input transformer	Ref: TDA-I
P.A. out transformer.	Ref: TDA-O
Plastic security cover	Ref: TP-1
Metal, key protected security cover	Ref: TPS-1
DIMENSIONS AND WEIGHT	
EF-200	1U x 19" x 210mm/3Kg.net
ES-200	2U x 19", 310 x 89 x 70mm/1,6Kg.net
EM-201, 4W2-200	84 x 38 x 130mm/270Gr.net.

Technical specifications subject to variation without previous notice.

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