

# Clear-Com Encore™

## IF4W4 4-Wire to Party-Line System Interface



IF4W4 front view

The IF4W4 modular 4-wire interface connects camera intercoms, two-way radios, fiber optics, and other 4-wire devices to a standard Clear-Com intercom line. The 1-RU chassis holds up to four individual interface modules, each with its own 4-wire terminal block and XLR-3M connector to interface with Clear-Com.

The IF4W4 accepts balanced or unbalanced 4-wire input and is transformer isolated. It is powered by the Clear-Com intercom line, using standard two-conductor shielded mic cable.

### Front Panel Capabilities

Front-panel controls allow the user to adjust the operating parameters for each interface module, optimizing the interface between the 4-wire device and the party line. Capabilities include: adjusting the transmit and receive levels between the intercom system and the 4-wire line; optimizing the hybrid null balance; switching the transmit level between mic and line level; and emulating either a carbon or a dynamic microphone. A two-color LED transmit-level indicator gives a visual indication of send levels to the transmit lines.

A front-panel test jack is connected to a built-in oscillator. Using the null control and an earphone with a 1/8" plug or 4-pin headset, the user can quickly null the send/receive hybrid. Set-up switches allow the user to assign the interfaced devices to separate intercom channels, or to assign any or all to a single party line.

### Connections

Each interface module has its own set of transformer-isolated connectors. The terminal block provides a pair of connections for both transmit and receive signals, with a 600-ohm load across the receive line. An XLR-3M connector provides the link between the interface and the Clear-Com intercom line.

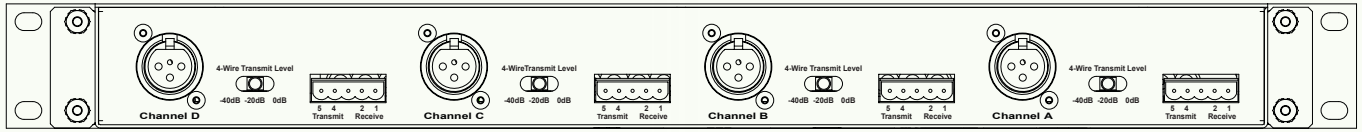
### Features:

- Interfaces TV cameras, 2-way radios, fiber-optic circuits, and other devices to Clear-Com party-line intercom
- Each interface has individual transmit, receive, and null controls
- Transmit output switchable between mic and line level, with transmit-level indicator
- Built-in test jack and oscillator enable quick nulling of the transmit/receive hybrid
- Selective party-line capability
- Accepts balanced or unbalanced 4-wire input
- Transformer isolated
- Terminal block and XLR connectors provided for each interface
- Powered by the Clear-Com line



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IF4W4 back panel

### Technical Specifications:

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

#### Program Line Input

Input Impedance:  $\geq 1\text{K}\Omega$

#### Party Line Output

Output Impedance:  $>10\text{K}\Omega$

#### Stage Announce/Balanced Line Out

Type: Balanced

Output Impedance:  $\geq 80\Omega$

Load Impedance:  $\geq 600\Omega$

#### Frequency Response

Program Input - Party Line: 200 - 18KHz  $\pm 3\text{dB}$

Party Line - Line Out: 200 - 18KHz  $\pm 3\text{dB}$

#### Max Distortion

Program Input - Party Line:  $\leq 0.2\%$

Party Line - Line Out:  $\leq 0.5\%$

#### Noise

Program Input - Party Line:  $< -85\text{dBu}$

Party Line - Line Out:  $< -60\text{dBu}$

#### Max Gain

Program Input - Party Line:  $\geq -16\text{dB}$

Party Line - Line Out:  $\geq 24\text{dB}$

#### Min Gain

Program Input - Party Line:  $\leq -20\text{dB}$

Party Line - Line Out:  $\leq -45\text{dB}$

#### Line Out LED Threshold

Green:  $-7\text{dBu} \pm 2\text{dB}$

Red:  $+5\text{dBu} \pm 2\text{dB}$

#### Party Line LED Threshold

Green:  $-10\text{dBu} \pm 2\text{dB}$

Red:  $0\text{dBu} \pm 2\text{dB}$

#### Power

Input Voltage Range: 20-30 VDC

Input Current (Idle):  $\leq 40\text{mA}$

Input Current (Max):  $\leq 50\text{mA}$

#### Rear Panel Connectors

Intercom: (4) XLR-3F  
(1 per channel)

4-Wire Terminal  
Block Connectors: (4) Connectors  
(1 per channel)

4-Wire Transmit  
Level Switches: (4) Switches  
(1 per channel)

#### Front Panel Connectors

Headset: (1) XLR-4M

TS1 Earphone: (1) 3.5mm Jack  
Socket

#### Front Panel Controls & Indicators

Green Level LED: (4) LEDs  
(1 per channel)

Red Level LED: (4) LEDs  
(1 per channel)

Link LED: (4) LEDs  
(1 per channel)

Power LED: (4) LEDs  
(1 per channel)

Null Test Button: (4) Buttons  
(1 per channel)

Receive Level Adjust: (4) In controls  
(1 per channel)

Transmit Level Adjust: (4) Out controls  
(1 per channel)

Nulling Adjust: (12) Null controls  
(3 per channel)

Channel Link Switch: (3) Link switches  
(A+B, A+C, A+D)

#### Environmental:

32 - 122°F (0 - 50°C)

#### Dimensions

19 in. W x 1.75 in. H x 7.75 in. D  
(483 mm x 44.5 mm x 197 mm)

#### Weight

5.83 lbs. (2.65 Kg)

#### Notice About Specifications

While Clear-Com makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-center specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary.

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