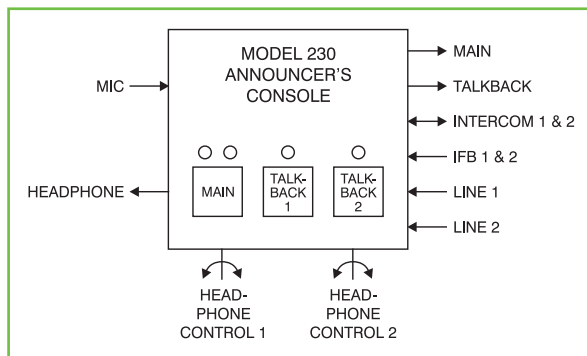


# Model 230

Announcer's Console



*The Model 230 Announcer's Console is a powerful audio control "hub" for announcers, commentators, and production personnel. Compatible with essentially all broadcast and production audio system environments, the tabletop unit is well suited for on-air television and radio broadcast, and live-event production.*



## Key Features:

- Microphone preamp with selectable gain and 48 volt phantom power
- Two line-level inputs
- Broadcast IFB input
- Three pushbutton switches offer programmable "click-free" audio path control
- Transformer-balanced main output
- Line-level talkback output
- Dual-channel intercom interface with "auto-terminate"
- Stereo headphone monitoring of selectable sources
- Two rotary headphone output level controls
- Microcontroller-directed audio routing
- Auxiliary relay contacts
- Powered by intercom, IFB, or by external DC source
- All configuration switches and trim potentiometers accessible via the bottom of the enclosure

## Flexible Setup

Three pushbutton switches—Main, Talkback 1, and Talkback 2—operate under microprocessor control to offer unmatched flexibility and "click-free" audio routing. The Main button controls the main output with operating modes that include push-to-mute (cough), push-to-talk, and latching. The Talkback 1 and Talkback 2 buttons can be configured to route to one of three locations: intercom channel 1, intercom channel 2, or a line-level talkback output. For non-on-air applications a special feature set referred to as "production" mode can be enabled. Simple customization of the button labels ensures the user is presented with an easy-to-use set of controls and indicators.

## Superior Audio

Featuring a studio-inspired low-noise/low-distortion preamplifier design, adjustable gain, and 48 volt phantom power, the Model 230 is compatible with balanced dynamic and condenser microphones. With high output capability and the use of an output transformer expressly designed for professional audio applications, the main output offers broadcast-quality audio as the on-air, stadium announcement, or other primary audio feed.

## Powerful Monitoring

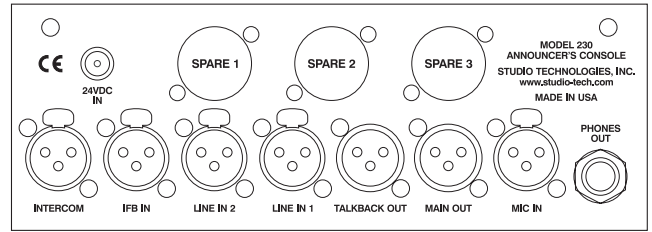
The headphone output's circuitry provides high output levels with very low distortion and noise. The user can monitor up to six external audio sources: IFB channel 1, IFB channel 2, line input 1, line input 2, intercom channel 1, and intercom channel 2. Possible signal sources for the line-level inputs include off-air receivers, wireless IFB systems, and audio consoles. The Model 230's intercom interface is compatible with standard party-line intercom systems from manufacturers such as RTS™ and Clear-Com®. Each source can be individually assigned to the left, right, or both channels of the binaural headphone output. Two rotary controls allow the user to adjust the headphone output levels. Studio Technologies' unique "auto-terminate" feature ensures talkback-to-intercom "squeal" will never occur in the headphone output if an intercom line is disconnected.

## Speedy Configuration

Model 230 configurations are made using DIP-type switches and trim potentiometers that are accessible via the bottom of the enclosure. No disassembly is required. An included security panel attaches to the bottom of the enclosure to limit access.

# Installer Friendly

The Model 230 can be powered by the IFB input, intercom interface, or the supplied external 24 volt DC source. Regardless of the power source used, the console is always fully operational including 48 volt phantom power. Audio inputs and outputs utilize industry-standard 3-pin XLR-type connections. Three spare connector locations are available on the Model 230's back panel. Factory-available assemblies and card kits allow a technician to customize these spare locations to accept a 6- or 7-pin XLR-type headset or to bring the auxiliary relay contacts to an XLR connector. Additional card kits include direct microphone output, second line-level talkback output, and remote switch input.



Model 230 Back Panel

## Specifications

### General Audio:

Frequency Response: 20 Hz-20 kHz,  $\pm 0.1$  dB, mic in/main out  
 Distortion (THD+N): 0.008%, measured at 1 kHz, mic in/main out  
 S/N Ratio: 80 dB, referenced to -46 dBu mic in/ -2 dBu main out

### Connectors:

Mic In, Line In 1 & 2, IFB In, Intercom Interface: 3-pin female XLR-type  
 Main Out, Talkback Out: 3-pin male XLR-type  
 Headphone Out: 1/4-inch 3-conductor phone jack  
 24 Vdc Power In: 2.1 x 5.5 mm coaxial power jack

### Spare Connector Locations: 3

Allows up to three Neutrik NC\*D-L-1 connectors to be installed (\*=3F, 3M, 5F, 5M, 6F, 6FS, etc.)

### Microphone Input/Preamplifier:

Type: electronically balanced  
 Input Impedance: 2 k ohms  
 Gain Range: 20 to 60 dB, adjustable in 10 dB steps  
 Compatibility: dynamic or phantom-powered mics  
 Phantom Power: 48 Vdc, nominal, meets IEC 61938

### Compressor:

Threshold: 2 dB above nominal level  
 Attack/Release Time: 2 mSec/100 mSec  
 Slope: 5:1

### Line Inputs: 2

Type: balanced, transformer-coupled  
 Impedance: 10 k ohms  
 Nominal Level: -12 dBV to +6 dBu, adjustable

### IFB Input:

Type: 2-channel, unbalanced (pin 1 common; pin 2 DC with channel 1 audio; pin 3 channel 2 audio)  
 Impedance: 10 k ohms  
 Nominal Level: -10 dBu

### Intercom Interface:

Type: 2-channel, unbalanced (pin 1 common; pin 2 DC with channel 1 audio; pin 3 channel 2 audio)  
 Compatibility: single- and dual-channel intercom systems such as from RTS™ and Clear-Com®  
 Impedance: 10 k ohms  
 Nominal Level: -10 dBu

### Main Output:

Type: balanced, transformer-coupled  
 Nominal Level: -2 dBu  
 Maximum Level: +20 dBu into 2 k ohms  
 Impedance: 100 ohms

### Line-Level Talkback Output:

Type: transformer-coupled with series capacitors and isolation resistors  
 Impedance: 600 ohms  
 Nominal Level: +4 dBu  
 Maximum Level: +11 dBu (compressor restricts maximum)

### Headphone Output: 1, binaural (stereo)

Compatibility: intended for connection to mono or stereo headphones or headsets with nominal impedance of 100 ohms or greater  
 Type: voltage driver  
 Maximum Output Voltage: 8 Vpp, 150 ohm load

### Auxiliary Relay:

Contacts: 2, form C (Common, Normally Closed, Normally Open)  
 Rating: 1 A, 30 W (resistive)

### Power Sources:

IFB Input: 24-32 Vdc, 125 mA  
 Intercom Interface: 24-32 Vdc, 125 mA  
 External: 24 Vdc, 90 mA; acceptable range 20-30 Vdc. All units include a universal input/24 Vdc output power supply.

### Dimensions (Overall):

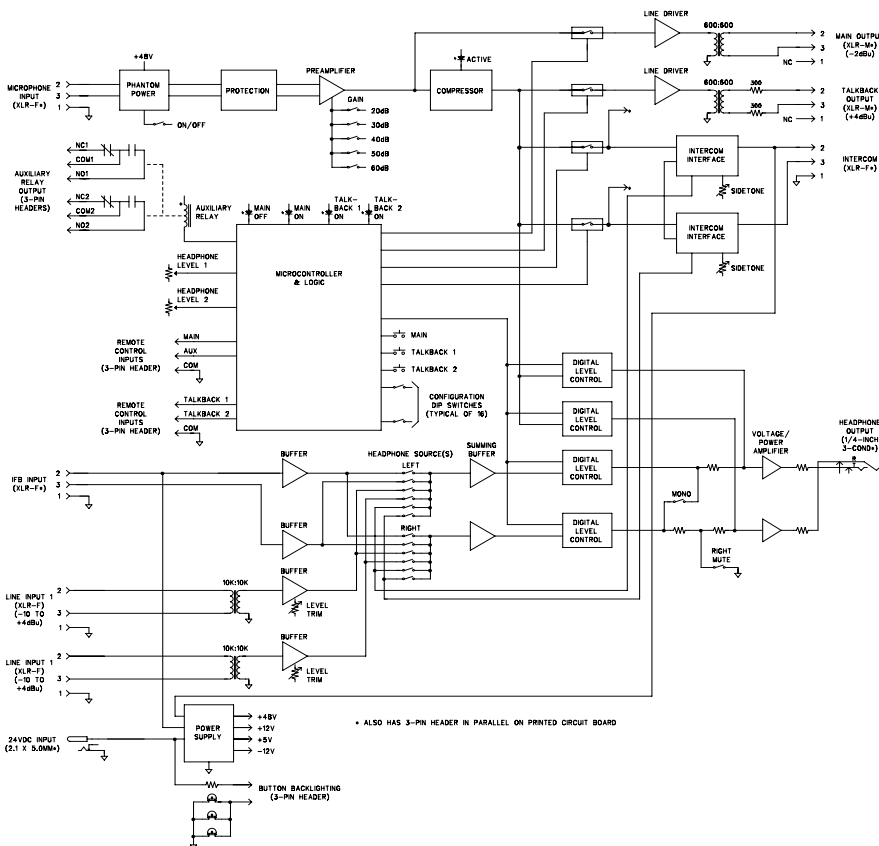
8.1 inches wide (20.6 cm)  
 3.3 inches high (8.4 cm)  
 8.5 inches deep (22.4 cm)

**Weight:** 4.5 pounds (2.1 kg)

Specifications subject to change without notice.

Additional Model 230 information can be downloaded from [www.studio-tech.com](http://www.studio-tech.com). Downloads include:

- User Guide
- Block Diagram
- Configuration Guide
- Model 200-Series Accessories Installation & Configuration Guide



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[www.studio-tech.com](http://www.studio-tech.com)